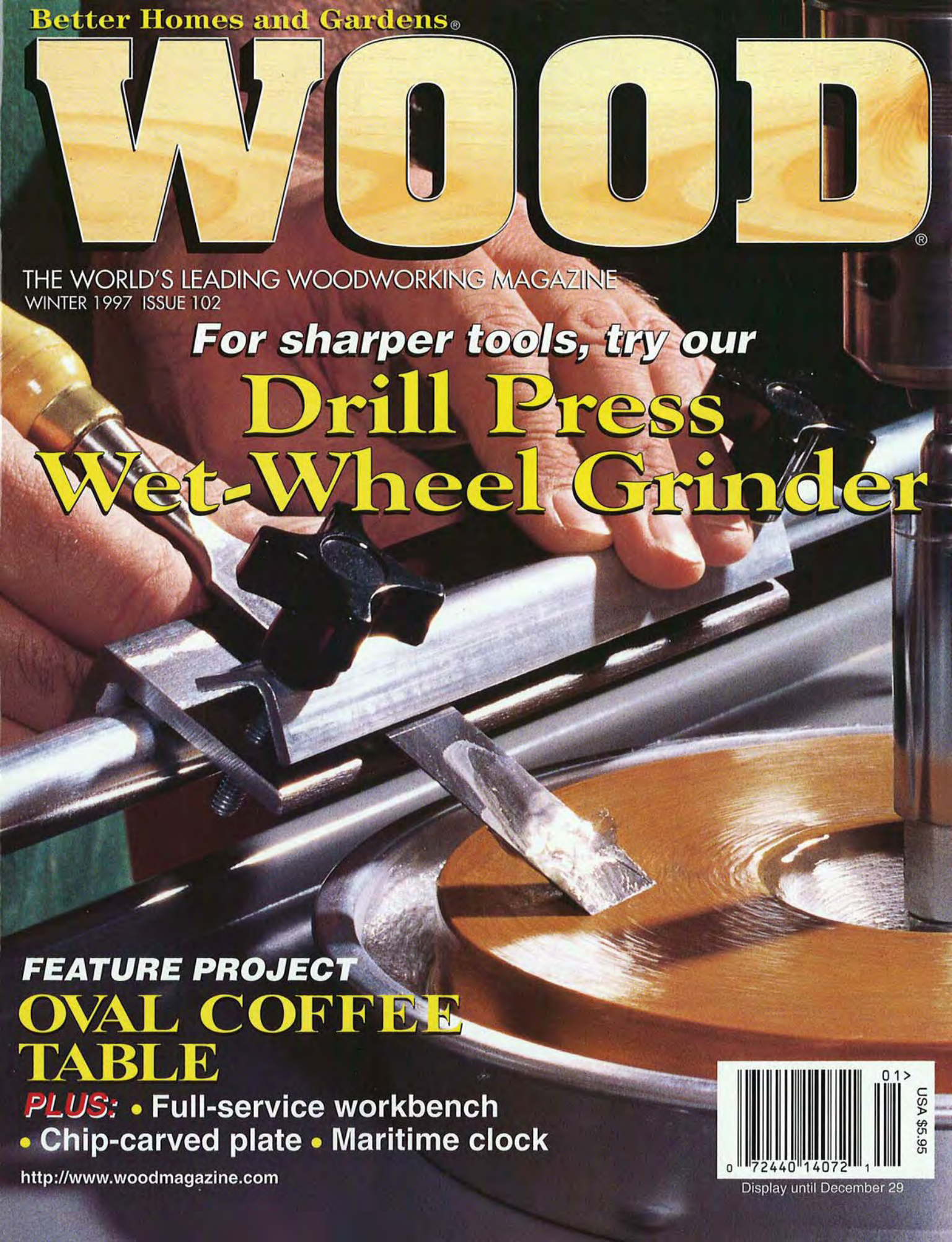
Better Homes and Gardens®

WOOD®

THE WORLD'S LEADING WOODWORKING MAGAZINE
WINTER 1997 ISSUE 102

For sharper tools, try our

Drill Press Wet-Wheel Grinder



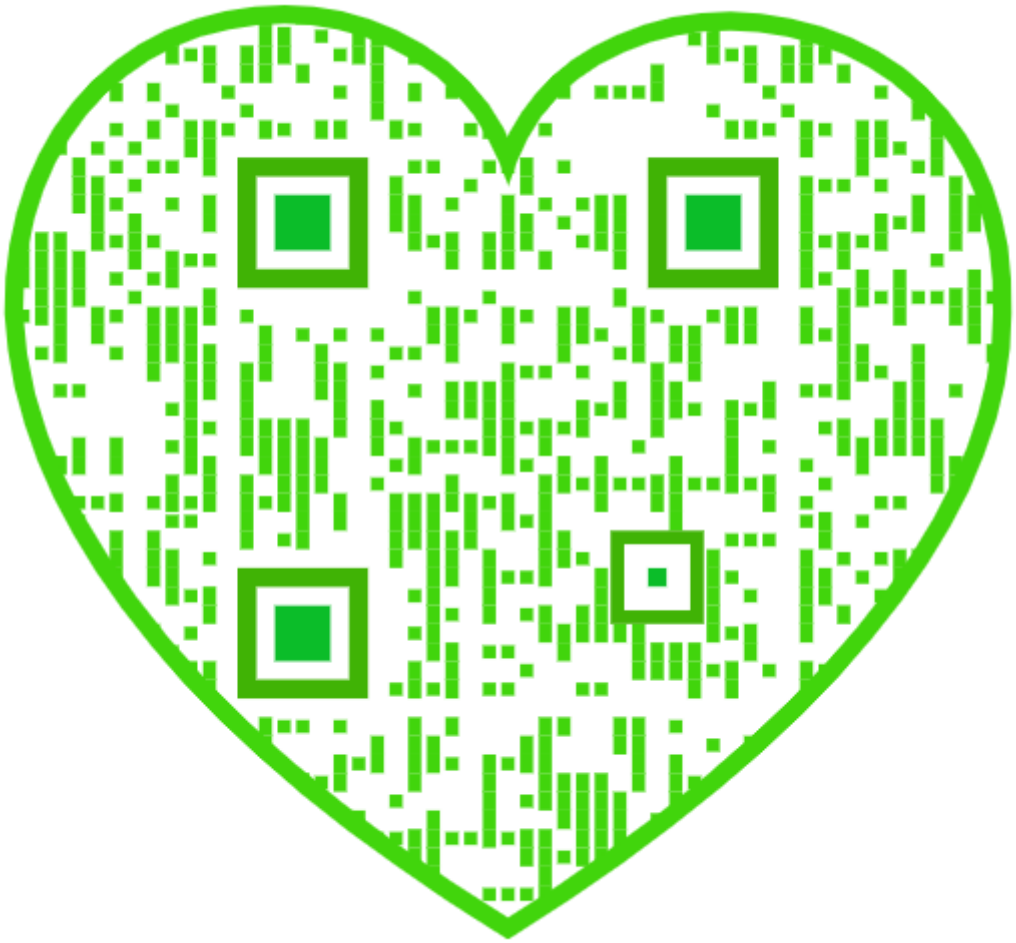
FEATURE PROJECT

OVAL COFFEE TABLE

PLUS: • Full-service workbench • Chip-carved plate • Maritime clock

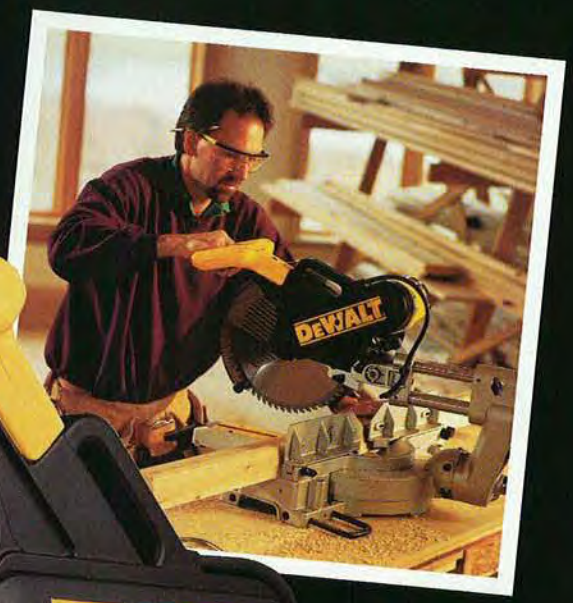
http://www.woodmagazine.com

01>
0 72440 14072 1
USA $5.95
Display until December 29

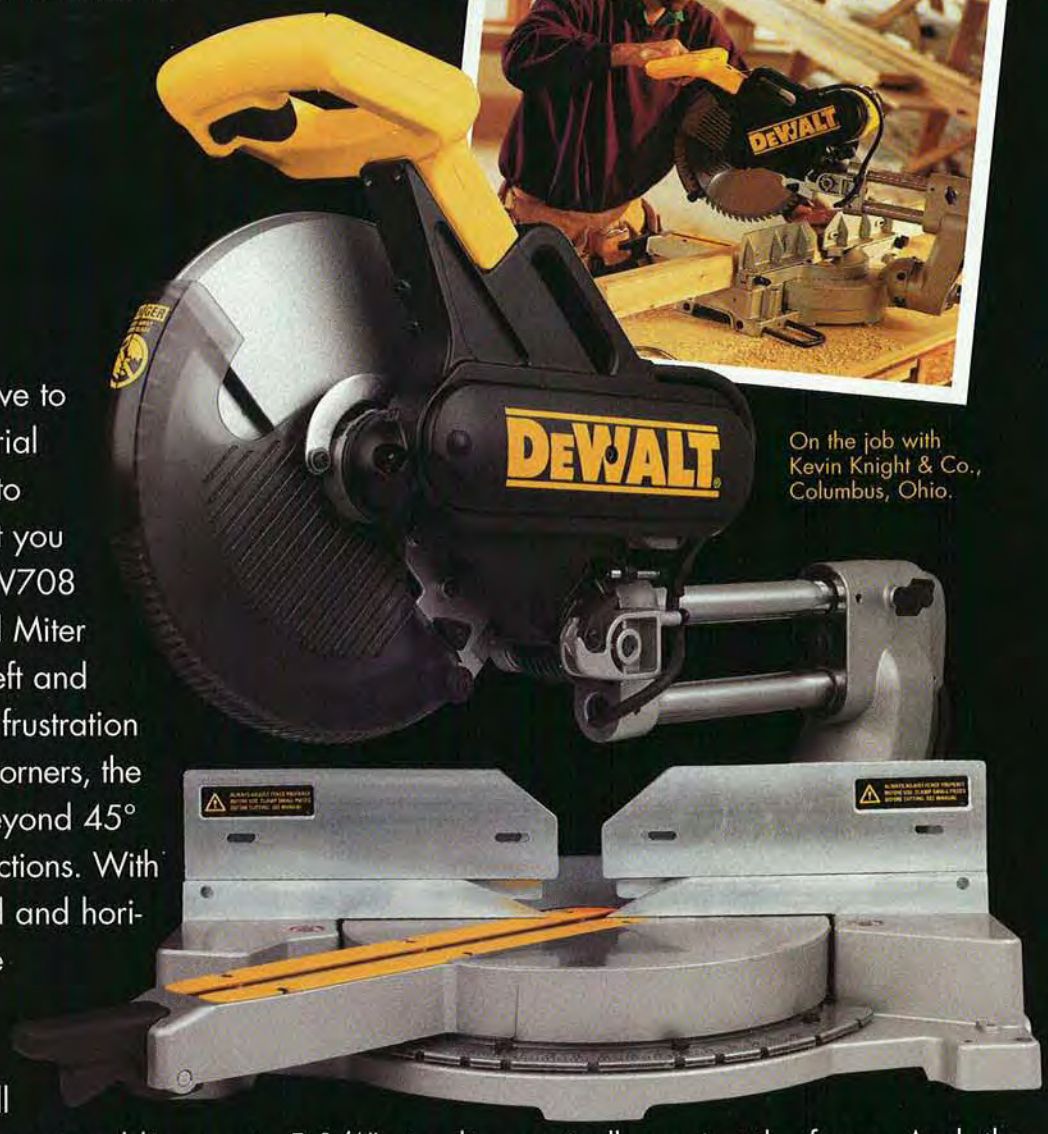


THE NEW DW708 12" SLIDING COMPOUND MITER SAW FROM DEWALT

FLIP THE SAW. NOT THE WORK.



On the job with Kevin Knight & Co., Columbus, Ohio.



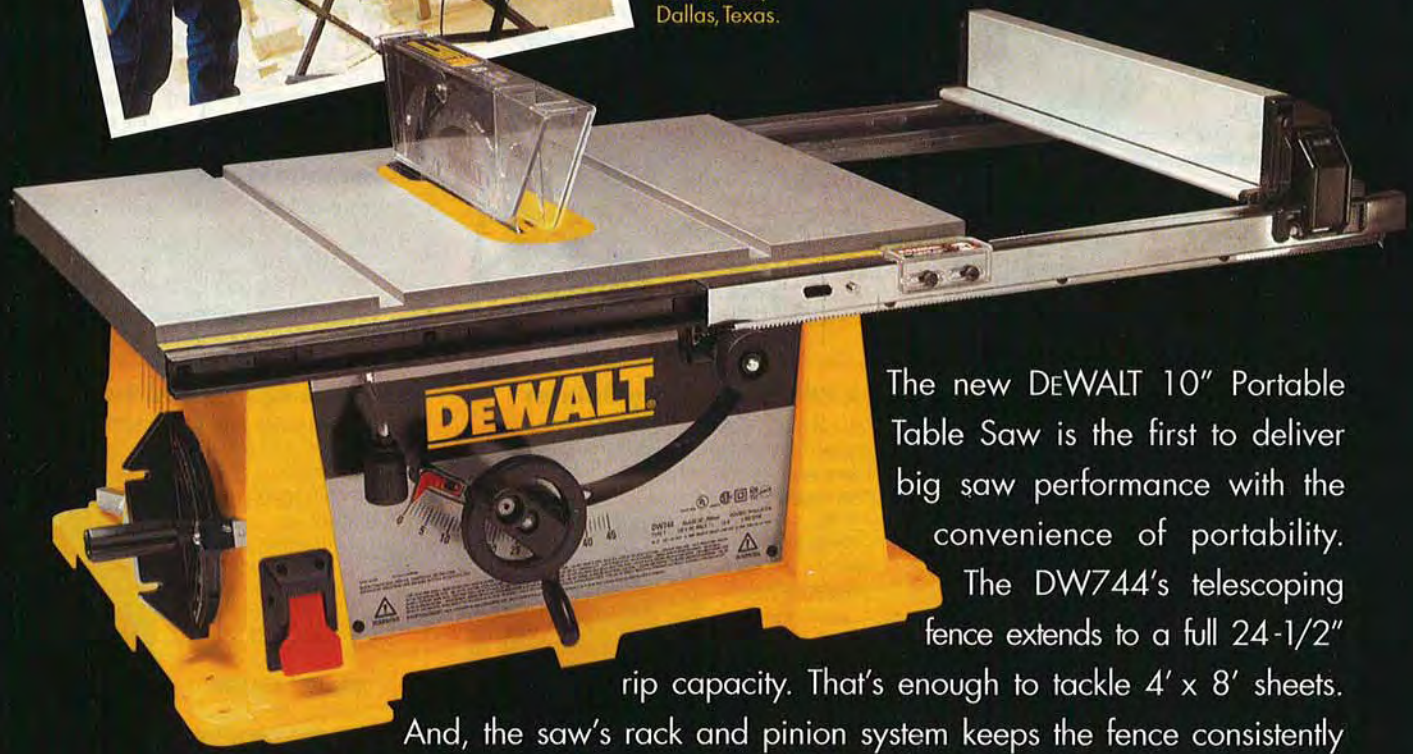
Now you don't have to pick up your material and flip it around to make the bevel cut you need. The new DW708 Sliding Compound Miter Saw bevels both left and right. And, to end frustration with out-of-square corners, the DW708 bevels beyond 45° to 48° in both directions. With unmatched vertical and horizontal capacity, the DW708 makes cuts other miter saws can't. The tall fence allows you to cut molding up to 5-1/4" standing vertically against the fence. And, the saw glides smoothly on dual vertical rails utilizing a linear ball bearing and bronze guides to easily cut stock up to 12" wide. The easy-to-see stainless steel miter scale has eleven positive stops and an unprecedented cam-action miter locking system. It's not just a miter saw. It's a DEWALT. For more information, call 1-800-4-DEWALT.

DEWALT®
High Performance Industrial Tools

THE NEW DW744 10" PORTABLE TABLE SAW FROM DEWALT

RIP IT UP, THEN PACK IT UP.

On the job with Jack Rule Custom Trim & Rail, Dallas, Texas.



The new DEWALT 10" Portable Table Saw is the first to deliver big saw performance with the convenience of portability. The DW744's telescoping fence extends to a full 24-1/2" rip capacity. That's enough to tackle 4' x 8' sheets. And, the saw's rack and pinion system keeps the fence consistently parallel to the blade for accurate cuts without repeated measuring. Simply retract the fence to carry the 64-pound saw to the next job. The large tabletop has a durable coating that won't mar your work. The saw runs on a 13 amp, high-torque motor and has a dust collection port. It's not just a table saw. It's a DEWALT. For more information, call 1-800-4-DEWALT.

DEWALT
High Performance Industrial Tools

Grizzly™ IMPORTS, INC.

"PURVEYORS OF FINE MACHINERY"

GRAND

Cross-Sliding Vise

- Large Capacity: 4"
- Base measures: 5" x 10-1/2"
- Top slide travel 4"
- Bottom slide travel: 4"
- Approx. shipping weight: 23 lbs.

Model G1064
only $39.95
FREE SHIPPING!

16 Piece Forstner Bit Set

- Precision ground shank!
- 3/8" shanks, 3-1/2" long
- Consist of 1one of each size from 1/4"- 2-1/8" in 1/8" increments.
- Includes wooden box
- Top quality!
- Approx. shipping weight: 7 lbs.

Model G1673
~~Reg. $59.95~~ only $36.95
FREE SHIPPING!

MEMPHIS,

NEW 100,000 SQ. FT.

NOVEMBER

We are celebrating the opening of our 3rd Showroom and Distribution Center in Memphis, Tennessee!

$30.00 SHIPPING
On all F.O.B. Items in the continental U.S.!

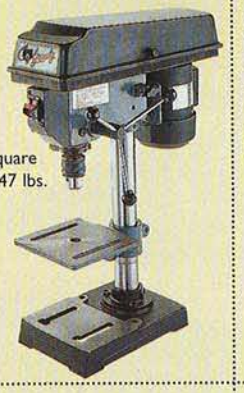
FREE SHIPPING
On all U.P.S. Items in the continental U.S.!

Huge selection of woodworking and metalworking tools and accessories. Look for spectacular deals and unadvertised specials.

Offer expires Dec. 20, 1997

Bench-Top Drill Press

- 1/3 H.P., 110V motor
- 1/2" chuck
- 5 speed: 620—3100 R.P.M.
- Cast iron table: 6-1/2" square
- Approx. shipping weight: 47 lbs.



Model G4014
only $79.95
FREE SHIPPING!

Combination Sander 6" x 48" Belt, 9" Disc

- Cast iron table, disc & body
- 3/4 H.P. motor, 3450 R.P.M.
- Quick belt-release mechanism
- Horizontal/Vertical operation
- Approx. shipping weight: 120 lbs.

Model G1014Z
only $169.95
ONLY $30 SHIPPING!

FREE "Z SERIES" HAT

6" x 47" Heavy-Duty Jointer

- 1 H.P., 110/220V motor
- 47" bed
- 1/2" rabbeting capacity
- Heavy-duty fence
- 3-knife cutterhead
- Approx. shipping weight: 250 lbs.

Model G1182
~~REG. $395.00~~
PRESIDENT'S SPECIAL! $349.95
ONLY $30 SHIPPING!

8" x 65" Heavy-Duty Jointer

- 1-1/2 H.P., 220V motor
- Precision ground heavy-duty cast iron beds
- Heavy duty, center mounted fence
- Max. depth of cuts: 1/2"
- 3-knife cutterhead
- Approx. shipping weight: 450 lbs.

Model G1018
only $660.00
ONLY $30 SHIPPING!

Oscillating Spindle Sander

- 1 H.P., 110/220V motor, 1720 RPM
- Built in 4" dust collection port
- Cast iron 25" x 25" table tilts to 45° - up to 20°
- 10 spindle sizes
- Spindle oscillates at 75 strokes/min.
- Approx. shipping weight: 345 lbs.

Model G1071
only $495.00
ONLY $30 SHIPPING!

1-1/2 H.P. Shaper

- 1-1/2 H.P., 110/220V motor
- 2 Interchangeable spindles: 1/2" & 3/4"
- 2 spindle speeds: 7,000 & 10,000 R.P.M.
- Cast-iron table
- Approx. shipping weight: 225 lbs.

Model G1035
A low, low price $425.00
ONLY $30 SHIPPING!

3 H.P. Shaper

- 3 H.P., 220V motor
- 3 Interchangeable spindles: 1/2", 3/4" & 1"
- 2 spindle speeds: 7,000 & 10,000 R.P.M.
- Precision-ground cast-iron table
- Table w/standard wings measures: 30" x 28"
- Approx. shipping weight: 375 lbs.

Model G1026
only $750.00
ONLY $30 SHIPPING!

14" Bandsaw

- 3/4 H.P., 110/220V motor,
- Maximum throat distance: 13-1/2"
- Maximum cutting height: 6"
- Blade speed: 2400 F.P.M.
- Cast iron body
- Accepts blades from 1/16" to 3/4" wide
- Approx. shipping weight: 200 lbs.

Model G1019
only $299.95
ONLY $30 SHIPPING!

VISA MasterCard DISCOVER NOVUS

MEDIA CODE
710

CALL TODAY FOR A FREE WOODWORKING CATALOG

Circle No. 860

CALL ANYTIME! 24 HRS. A DAY!

OPENING!

Grizzly™ IMPORTS, INC.

TENNESSEE

SHOWROOM & WAREHOUSE!

15TH, 1997

GRIZZLY IMPORTS
MEMPHIS SHOWROOM
4651 HICKORY HILL RD.,
MEMPHIS, TN 38141
HOURS: 8:30-5:00 MON-SAT

10" Heavy-Duty Table Saw

- Cast iron table & wings
- 1-1/2 H.P., 110/220V motor
- Front & rear quick lock fence
- New sturdy stand
- Approx. shipping weight: 270 lbs.

Model G1022
only $375.00
ONLY $30 SHIPPING!

10" Heavy-Duty Table Saw

FREE "Z SERIES" HAT & SAW BLADE

- 1-1/2 H.P., 110/220V
- Cast iron table w/wings: 27-1/8" x 40-5/8"
- 2 cast iron extension wings
- Re-designed fence w/T-slots
- See-through guard
- Approx. shipping weight: 270lbs.

Model G1022Z
only $449.00
ONLY $30 SHIPPING!

10" Tilting Arbor Super Heavy-Duty Table Saw

- 3 H.P., 220V motor
- Heavy-duty rip fence
- Cast-iron table & wings
- Triple belt drive
- T-slotted table
- Approx. shipping weight: 425 lbs.

Model G1023
~~REG. $795.00~~ only $695.00
ONLY $30 SHIPPING!

10" Tilting Arbor Super Heavy-Duty Table Saw

FREE "Z SERIES" HAT & SAW BLADE

- 3 H.P., 220V motor
- Cast iron table w/wings: 36-5/8" x 27"
- Shop Fox® Fence
- Built in dust port
- 1 pc. steel type cabinet
- Beveled table edge
- Approx. shipping weight: 450 lbs.

USA MOTOR

Model G1023Z
only $1095.00
ONLY $30 SHIPPING!

2 H.P. Dust Collector

- 2 H.P., 220V motor
- Overall Height: 78"
- 2 Intake holes
- Portable Base
- Approx. shipping weight: 140 lbs.

FREE 4" X 10' Hose & Dust Collection Basics Book

1997 WOOD MAGAZINE EDITORS' CHOICE TOP VALUE

Model G1029
only $255.00
ONLY $30 SHIPPING!

12" Planer

AMERICAN WOODWORKER BEST BUY 1996

1996 WOOD MAGAZINE EDITORS' CHOICE TOP VALUE

- 2 H.P., 110V motor
- Cast iron columns
- Max. cutting width: 12"
- Min. board thickness: 1/4"
- Cutterhead R.P.M.: 8500
- 55 cuts per inch
- Approx. shipping weight: 90 lbs.

Model G1017
only $399.95
only $30 Shipping!

15" Planer

- 2 H.P., 3450 R.P.M., 220V motor
- Infeed & outfeed rollers
- Magnetic Switch
- 3-knife cutterhead
- 2 speeds
- Stand included
- Approx. shipping weight: 475 lbs.

Model G1021
only $795.00
only $30 Shipping!

16" Bandsaw

- 1-1/2 H.P., 110/220V motor (prewired for 220V)
- One-piece cast iron body
- Balanced cast iron wheels w/rubber tires
- Micro adj. blade guides
- Blade length: 113"
- 3 blade speeds
- All-ball bearing construction
- Approx. shipping weight: 450 lbs.

AMERICAN WOODWORKER BEST BUY 1996

Model G1073
only $595.00
only $30 Shipping!

13" Planer / Moulder

- 1-1/2 H.P., 110/220V motor
- Floor stand
- Precision ground cast iron table
- Rubberized steel feed rollers
- Max. width of cut: 13"
- Max. lumber height: 6"
- Planing feed rate: 20 F.P.M.
- Moulding feed rate: 10 F.P.M.
- Approx. shipping weight: 230 lbs.

Model G1037
~~REG. $795.00~~ only $695.00
only $30 Shipping!

20" Planer

- 3 H.P., 220V motor
- 2 speeds
- Cast iron construction
- Precision ground cast iron table
- Anti-kickback fingers prevents board back ups
- Dust exhaust hood & extension rollers
- Approx. shipping weight: 800 lbs.

Model G1033
only $1295.00
only $30 Shipping!

150097658

1-800-523-4777

CUSTOMER SERVICE: (717) 326-3806 TOLL FREE FAX: (800)438-5901
Visit our website at: http://www.grizzlyimports.com

VISIT OUR OTHER LOCATIONS:
1821 VALENCIA ST., BELLINGHAM, WA 98226
SHOWROOM HOURS: 8:30AM - 5:00PM MON-FRI
2406 REACH RD., WILLIAMSPORT, PA 17701
SHOWROOM HOURS: 8:30AM - 5:00PM MON-FRI, SAT 8:30AM - 1PM

IN SOME CIRCLES A MAN'S STATUS IS MEASURED BY FRIVOLOUS THINGS LIKE CARS.

Extension table slides 3½" for extra support of material.

Dual guide bearings allow for superior stability and joints tighter than Alcatraz.

Quick, accurate settings are a snap with rock-solid miter and bevel detents.

The new Bosch 10" slide compound miter saw cuts down any thought of compromise. With all the best features of any saw rolled into one, it's sure to be the envy of the neighborhood you're building.

BOSCH

ENGINEERED FOR PERFORMANCE™

© 1997 S-B Power Tool Company

www.boschtools.com

ISSUE NO. 102 WINTER 1997
This issue's cover wood grain: knotty pine

Page 37

Better Homes and Gardens®
WOOD®
THE WORLD'S LEADING WOODWORKING MAGAZINE

CONTENTS

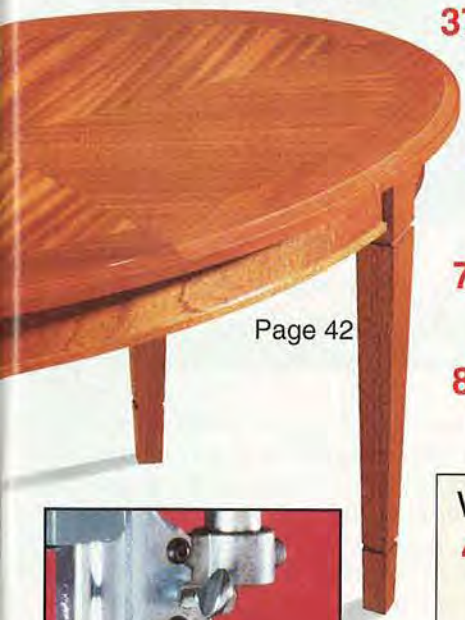
33 Wood profile: beech
This species has proved useful for footwear, furniture parts, barrels, and papermaking.

37 The ABC's of banding curves
Master the method for trimming and joining the curved edges of neighboring project pieces, like those found in the top of our oval coffee table.

50 Stationary bandsaws
Check out 10 floor-model tools ranging in price from $400-$750 in our side-by-side test.

76 Solar wood for sale
Travel to Spring Green, Wisconsin, to a small, efficient mill that dries its lumber using the sun.

81 Solvent savvy
See what solvents dissolve various woodworking finishes, and how to handle them safely.



Page 42

Page 50

Woodworking projects

42 Elegant oval coffee table
Discover how to bend table skirts, create an exciting-looking oval tabletop, and taper legs while making this fine furniture piece.

56 Full-service workbench
Build our cabinet-style workbench with flip-up tables for benchtop tools.

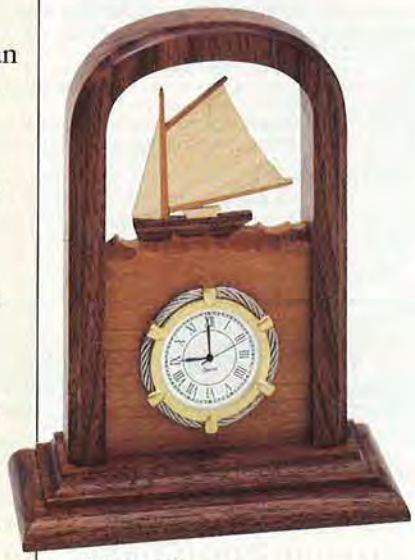
62 Wet-wheel grinder
Build this smart jig and turn your drill press into a handy, effective, sharpening center.

68 Picture-pretty chip carving
Take a stab at a decorative Swiss-style plate designed by the master, Wayne Barton.

72 Maritime timepiece
Create a desktop clock that combines a framed sailboat with a nautical movement.

Page 62

Page 68



Page 72

SHORT-SUBJECT FEATURES

6 The Editor's Angle
8 Talking Back
14 Project Showcase
18 Table-Mount Your Router
22 Shop Tips
30 Wood Anecdote
84 Great Ideas For Your Shop
92 Products That Perform
102 Finishing Touches

Better Homes and Gardens®
WOOD®
THE WORLD'S LEADING WOODWORKING MAGAZINE

WINTER 1997 • Vol. 14, No. 9 • Issue No. 102

Editor LARRY CLAYTON
Managing Editor JIM HARROLD
Art Director C. L. GATZKE
Design Editor JAMES R. DOWNING
Senior Editor/Features PETER J. STEPHANO
Senior Editor/How-To MARLEN KEMMET
Assistant Managing Editor/Products BILL KRIER
Senior Editor/Special-Interest LARRY JOHNSTON
Associate Art Director PERRY A. McFARLIN
Assistant Design Editor/Project Builder JAN HALE SVEC
Project Builder CHARLES I. HEDLUND
Senior Graphic Designer CHERYL A. CIBULA
Production/Office Manager MARGARET CLOSNER
Administrative Assistant SHERYL MUNYON
Art Business Office Secretary BARBARA HELPS
Correspondence Writer ROBBY PEDERSEN
Contributing Editors KIM DOWNING, DAVE HENDERSON, LORNA JOHNSON, ROXANNE LeMOINE, BOB McFARLIN

©Copyright Meredith Corporation 1997
All rights reserved. Printed in the U.S.A.

Better Homes and Gardens® WOOD® magazine (ISSN-0743-894X) is published nine times a year in January, February, March, April, June, August, October, November, and December by Meredith Corporation, 1716 Locust St., Des Moines, IA 50309-3023. Periodicals postage paid at Des Moines, Iowa, and additional mailing offices. *Better Homes and Gardens* trademark registered in Canada and Australia. Marca Registrada en México. **ONE-YEAR SUBSCRIPTION PRICES:** U.S. and its possessions, $25; Canada, $36; other countries, $45. Canadian GST Reg. #BN 12348 2887 RT. **POSTMASTER:** Send address changes to *Better Homes and Gardens WOOD* Magazine, P.O. Box 55050, Boulder, CO 80328-5050.

CUSTOMER SERVICE INFORMATION: For service on your magazine subscription including change of address, phone toll-free **800/374-9663.** Or, write to *Better Homes and Gardens WOOD* Magazine, P.O. Box 55050, Boulder, CO 80328-5050. Please enclose your address label from a recent issue.
EDITORIAL INFORMATION: Address letters and questions to THE EDITOR, *WOOD* Magazine, 1912 Grand Avenue, Des Moines, IA 50309-3379.
ATTENTION RETAILERS: To carry *WOOD* magazine in your store, call 800/659-5990, or write: Select Title Program, *WOOD* magazine, 900 Kingsland, Batavia, IL 60510.

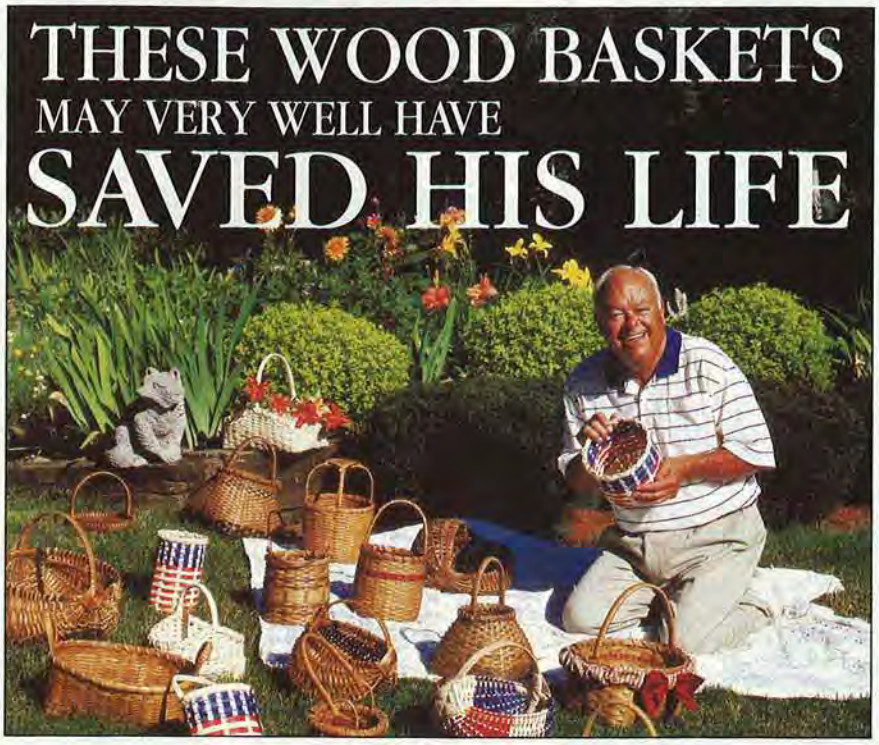
MPA

Better Homes and Gardens®
WOOD Online™
http://www.woodmagazine.com

Right from the start we've offered our popular *WOOD PLANS®* for sale through the Company Store pages of *WOOD Online*. Now, we've made it even more convenient to buy them, with the addition of AT&T's SecureBuy technology to our site. SecureBuy allows you to order online with your credit card instead of phoning, faxing, or mailing your order as in the past. (Of course, we'll still take orders the old way, too.) The new system gives you cyberspeed ordering with state-of-the-art security.

THE EDITOR'S ANGLE

THESE WOOD BASKETS MAY VERY WELL HAVE SAVED HIS LIFE



In the fall of 1996, *WOOD®* magazine reader Joe Melcher got some bad news. He had prostate cancer. Like so many other men in his situation, he had to decide how to fight it. Joe chose radiation. And he also made another decision that may have been every bit as lifesaving. He took up basketmaking. "I needed something to keep my mind off my illness, and making baskets has really helped me get through this stressful time."

I found out about Joe's condition in the spring of 1997 when his wife Barbara, a part-time employee here at *WOOD* magazine, brought in some of Joe's work one day. There must have been 20 different styles and shapes of baskets, and were they ever great looking. Then, when Barbara told me that Joe was largely self taught, I was even more impressed with his skill.

A few days later, I asked Barbara if she thought Joe would mind doing a workshop for the *WOOD* magazine staff. She checked, and a few weeks later Joe showed up with all the necessary materials and supplies in hand.

It turns out that Joe is not only a terrific basketmaker, but also a highly effective teacher. In about six hours, under Joe's able direction, each of his 10 eager students crafted a basket that looks professionally made. (Don't be surprised if you see a step-by-step basketmaking article in an upcoming issue.)

One of Joe's *WOOD* magazine students, Jim Downing, got so excited by his basketmaking success that he hosted a basketmaking party for some of his relatives a few weeks later. He reports that everyone had a great time doing their basketmaking thing.

So, how's Joe getting along these days? He's confident that he's got his cancer licked, and he's still cranking out a ton of beautiful baskets. And in addition to the satisfaction basketmaking gives him, Joe cites this advantage, especially for weight-conscious woodworkers: "I can sit down all afternoon making baskets and not even think about going to the refrigerator."

Thanks Joe, and the best of luck to you and Barbara in the future.

Larry Clayton

Photograph: Larry Clayton

Print this article

Let your imagination run wild.

Create beautiful edges, from a classic round over to a multi-pass cut, Freud bits can turn your router into a real dream machine.

Freud router bits cut super smooth profiles that you never have to sand. The **relief angle** of each bit is ground precisely to prevent the friction that causes rough edges and burning. Proper grinding also extends the life of your bit.

Our **micro-grain carbide** tips are the thickest in the industry. This makes them less prone to chipping and insures a long resharpening life. **Tri-metal** brazing is flexible enough to allow the carbide and steel to contract without any residual stresses.

Your safety is always most important, so we've made every Freud router bit with a special **anti-kickback design** that really works. It doesn't interfere with the speed or performance of your bit, but it does help keep you safe.

When you need just the right profile to turn your project into a masterpiece, Freud offers the **widest selection of bits** for any woodworking application (Including hard to find architectural and complex moulding profiles). Try one and you'll see why Freud is **precisely what you need.**

freud®

Precisely what you need.

Call us for a free catalog 800-472-7307.

For that "SPECIAL" project

See Us In Booth #3654 IWF Atlanta Aug. 22-25

IN STOCK
NO MINIMUM
VARIOUS WOODS

FREE COLOR CATALOGUE

Kits Ready to Assemble & Finish

Adams Wood Products, LTD. LP.
974 Forest Dr., Dept. M 34
Morristown, TN 37814 • Phone (423) 587-2942

Circle No. 1002

Better Homes and Gardens®
WOOD® Advertising & Marketing
THE WORLD'S LEADING WOODWORKING MAGAZINE

Publisher WILLIAM R. REED
Advertising Director MARK HAGEN
Manager, Marketing and New Business Development CATHERINE BJORK
Marketing/Ad. Services Supervisor PAT HENDERSHOTT

Display Advertising: 333 N. Michigan Ave., Suite 1101, Chicago, IL 60601 Phone: 312/853-2890 FAX: 312/580-7906
Eastern Advertising Manager JAMES N. FORD
Western Advertising Manager WILL MURPHY
Administrative Assistant GERALLIE LEGASPI

Direct Response Advertising: 1912 Grand Ave., Des Moines, IA 50309-3379 Phone: 515/284-3785 FAX: 515/284-3343
Direct Response Advertising CINDY ANDERSON, PATRICK MADDEN
Administrative Assistant KRISTI HASEK
Classified Advertising: Phone: 800/424-3090 FAX: 312/464-0512

Circulation Director LIZ BREDESON
Associate Circulation Director KATHI PRIEN
Business Manager JANET DONNELLY
Senior Product Manager RICK GROW

Publishing Director MAX RUNCIMAN

MEREDITH PUBLISHING GROUP

CHRISTOPHER M. LITTLE, President
BILL MURPHY, Custom Marketing; JERRY KAPLAN, Group Sales; MAX RUNCIMAN, Controller; BRUCE HESTON, Manufacturing; HAL ORINGER, Circulation; DEAN PIETERS, Operations

Meredith CORPORATION

JACK D. REHM, Chairman of the Board
WILLIAM T. KERR, President and Chief Executive Officer

E. T. MEREDITH III, Chairman of the Executive Committee

TALKING BACK

Nailing down the facts

In the June 1997 issue, in Talking Back, a Canadian gentleman states that all nails have a stamping line and two saw-toothed edges—not quite true. Cold-formed nails, formed from a coil of wire, have neither a saw-toothed edge nor a stamping line. To keep these nails from splitting the wood, blunt the point first, then drive the nail.

—George Fanning, Orange, Calif.

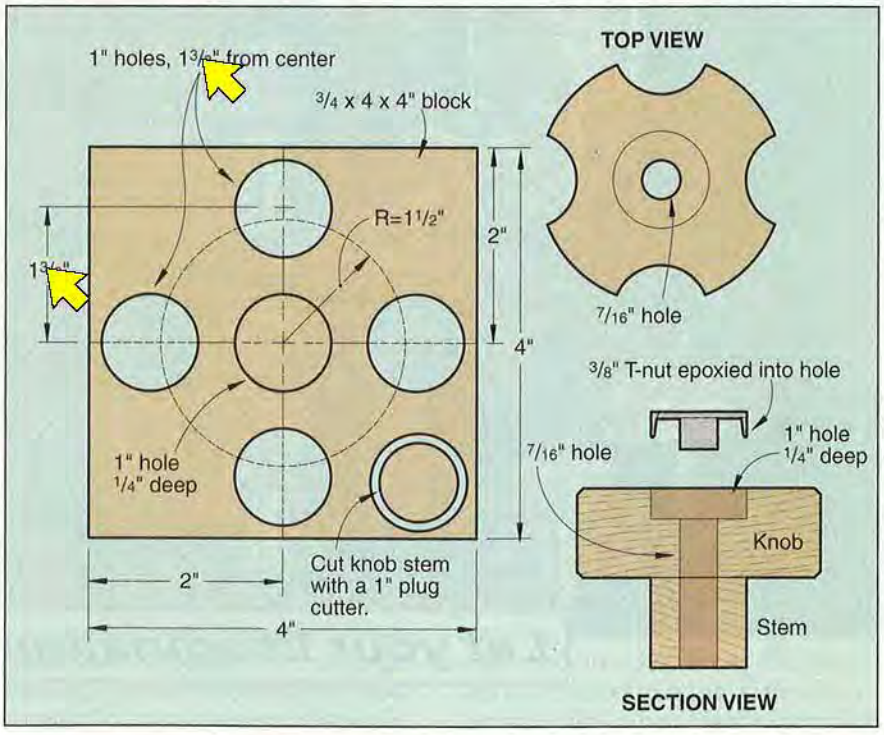
Get a grip with this homemade solution

I love the tenoning jig that appeared in the June 1997 issue. But, when I couldn't find a local supplier for the plastic knobs, I built a knob using scrap birch and a ⅜" T-nut. Here's how:

1 Draw vertical and horizontal centerlines on ¾×4×4" stock.
2 With a 1" forstner bit, drill a hole ¼" deep in the center as shown *below.*
3 Next, drill out the grips using the same bit to cut holes at 3, 6, 9, and 12 o'clock, spaced 1⅜" from the center of the blank.
4 Using a circle cutter set to 1½", cut the knob free.
5 From remaining material, cut a 1" knob stem with a plug cutter.
6 Glue knob and stem together.
7 Drill a 7/16" hole through the center of the assembly to accommodate the ⅜" bolt and ⅜" T-nut.

You'll have an attractive knob that you can really get a grip on.

—Dennis O'Leary, Windsor, Calif.



Let us know what's on your mind

We welcome your comments, criticisms, suggestions, and yes, even compliments. We'll do our level best to respond to you, perhaps on this page!

Write to us at: Talking Back, *WOOD* Magazine, 1912 Grand Ave., Des Moines, IA 50309-3379. Send e-mail to: woodmail@woodmagazine.com

Continued on page 13

ALL-NEW!

From the editors of Better Homes and Gardens® WOOD® Magazine

Take your woodworking skills up a notch or 10 with these fun-to-build country classics!

- **10 goof-proof, shop-tested projects!**
  Blanket Chest • Spice Cabinet • Admiral Clock, more!
- **Time-saving techniques from the experts!**
  Stenciling • Antiquing • Finishing, more!
- **Full-size color patterns**
- **100 tip-filled pages**
- **Easy, step-by-step instructions**

100% Money-Back Guarantee

If not completely delighted, let us know. We'll refund every penny.

On sale at your newsstand Nov. 4, 1997

To order now, call toll-free:
1-800-572-9350
7 a.m. to 9 p.m. CST
Visa, MasterCard accepted

Or send $4.95 (plus $2 shipping and handling — includes applicable taxes) to: WOOD Country Workshop, Dept. WDCW, P.O. Box 9255, Des Moines, IA 50306.

Add $2 for Canadian (GST/HST included) and other foreign orders. Please allow 4-6 weeks for delivery.

Give Yourself Some More Breathing Room.

The Best Just Got Better!

Introducing The New Model 350

- 55% More Air Flow
- Ultra Quiet
- 95% Ashrae tested main filter
- Lifetime Warranty
- 30 Day Money Back Guaranty.

*Better Homes and Gardens® WOOD® Magazine (Nov. '95)

JDS AIR-TECH 2000™

Recent medical studies show that breathing wood dust can be hazardous to your health. The JDS AIR-TECH 2000 will dramatically improve the quality of the air you breathe.

Our model 350 delivers 550 CFM of filtered air. This will clean the air in a 20 x 20 x 8 foot area ten times per hour. For larger areas, our dual speed model 8-12 will deliver 800 or 1,250 CFM of filtered air for only $495. Our model 10-16 will deliver 1,000 or 1,600 CFM of filtered air for $695.

The JDS AIR-TECH 2000 systems will remove 99% of particles as small as five microns and 80% of the particles as small as one micron.

Our unique design makes both ceiling installation and filter changing quick and easy.

For the removal of odors, fumes and smoke, our optional charcoal filter is available.

$259.00
Model 350

Another quality product from
Manufactured in the U.S.A.
JDS COMPANY

To place an order or for the dealer nearest you call us toll-free.
1-800-382-2637
And give yourself some breathing room.

Cab Fourward.

Ram The New Dodge

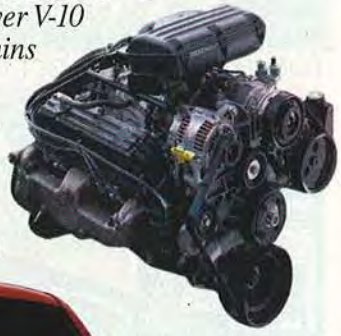
The truck that changed the rules was already foremost in available payload and towing. And now Dodge Ram is fourmost in accessibility. Introducing the new Ram Quad Cab™... the industry's first and only four-door, extended-cab pickup.†

Ram Quad Cab's four doors open to the roomiest interior of any extended cab,† a newly redesigned instrument panel and a new, standard passenger-side airbag.††

Dodge Ram has won Strategic Vision's Total Quality Award™ for "Best Ownership Experience" in a Full-Size Pickup, three years in a row. For more info, call 1-800-4-A-DODGE or visit our Web site at www.4adodge.com*

Building better bodies through computers–our new four-door Quad has the same structural soundness as our two-door Club.

Nothing matches the powerful line of Magnum® engines, with a V-6, a choice of two V-8s, the largest, most powerful gas engine on the market–a 300-horsepower V-10 –and a Cummins Turbo Diesel that delivers more torque than any other diesel you can buy.

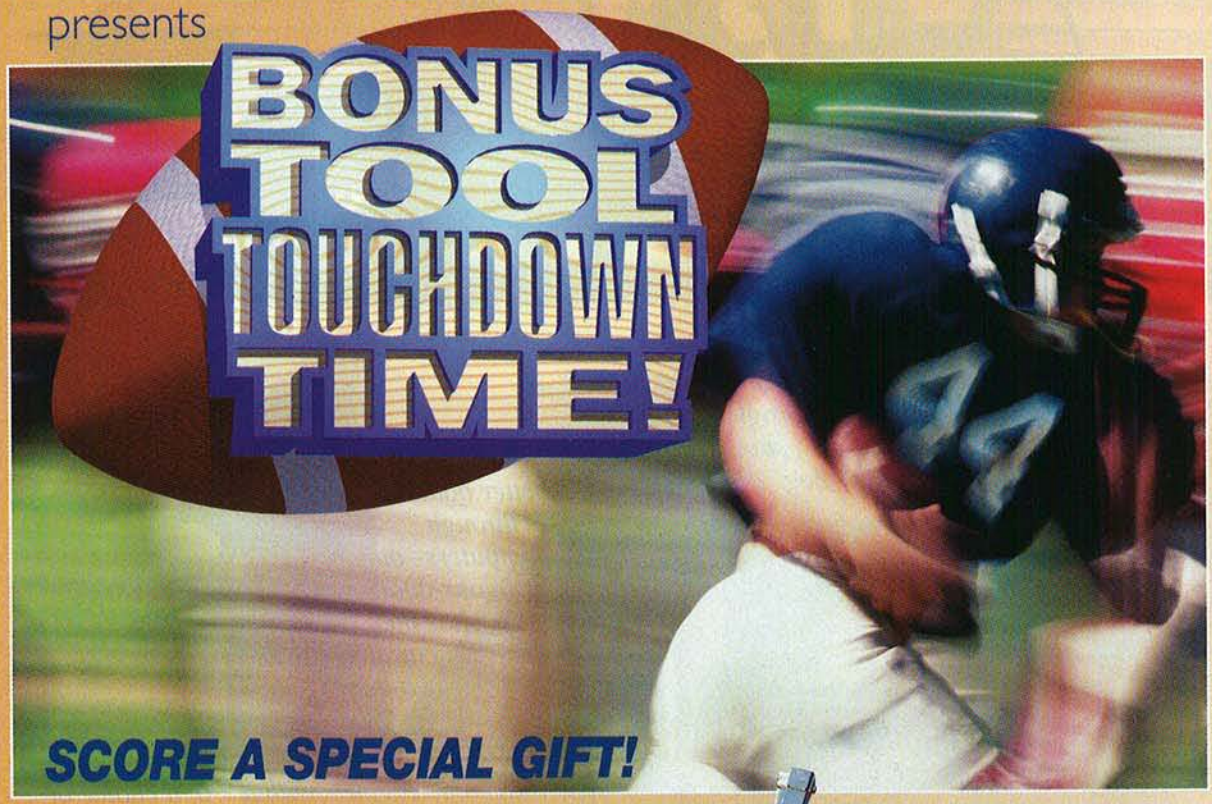


All comparisons based on data available at time of printing.

†Excludes Crew Cabs. ††Always use seat belts. Remember a backseat is the safest place for children. Rearward-facing child seats can be used in the front seat only with the passenger airbag turned off. *Based on Strategic Vision's 1995, 1996 and 1997 Vehicle Experience Studies™ of 31,440 ('95), 35,652 ('96) and 31,521 ('97) Oct.-Nov. new vehicle buyers of 170+ ('95) and 200+ ('96 and '97) models after the first 90 days of ownership.

DUO-FAST®

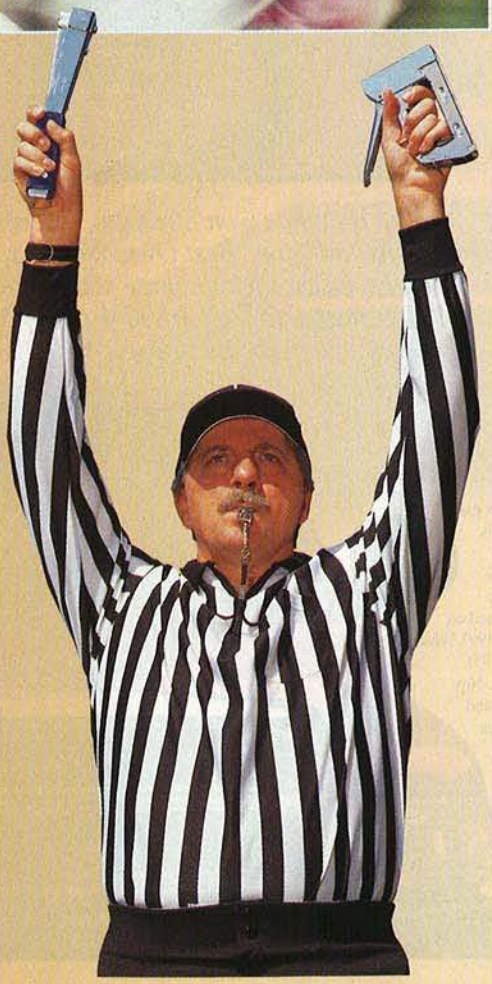
presents



Now through December 5, 1997 you will receive a new SLAPSHOT hammer stapler or SURESHOT staple gun with the purchase of a qualifying DUO-FAST tool—while supplies last. So, contact your DUO-FAST source and GET IN THE GAME.

new!
SURESHOT™
STAPLE GUN

new!
SLAPSHOT™
HAMMER STAPLER



CN-350B

CN-325B

DAFN-6480 Angle

LFN-764 Straight

MS-7664

DS-7664

DBN-4450/4440

DBN-4052S

RN-175

RNS-1748 I/R

RCN-60/225 and No Mar

KN-1848

DUO-FAST®

NAILERS • STAPLERS • FASTENERS

DUO-FAST Corporation • Quality Drive
Huntley, IL 60142-6700

For Information call:
1-800-717-3423
FAX: 1-800-9-DUO-FAX (1-800-938-6329)

Visit our Web site http://www.duo-fast.com

©1997 DUO-FAST CORPORATION

Continued from page 8

Out of the valley and into the kitchen

I loved the "Punched-tin wall cabinet" in the January 1997 issue. But, I decided to find out what would happen if I used regular aluminum flashing, or valley tin. The doors now have a warm coppery tone that goes well with the copper flavor of our kitchen. Here's how I did it:

First, wear gloves to cut the flashing to size. Next, punch out your pattern on the shiny side and clean it with detergent. Then, soak it in white vinegar for 24 hours. After soaking and to avoid problems with water spots, let it air-dry completely before going to the next step.

Once the flashing dries, place it in the oven, with the shiny side up, and turn up the heat to broil. In 15 to 20 minutes, the surface should develop a nice bronze or coppery tone (the back side will turn black). The longer you heat it, the darker it will become.

After punching, soaking, cooking, and cooling, coat the flashing with a few coats of spray-on lacquer or polyurethane. Without this protection, the new copper color will scratch easily. The final result looks great and adds even more warmth to our already warm and cozy kitchen.

—Ken Hayes, Ontario, N.Y.

Performax Drum Sanders continue to make those once-difficult sanding jobs easy.

New, solid, steel In-feed and Out-feed Tables are now available for all 16-32 models at a **Special Introductory Price of $79.95**. Multiple craft pieces, as short as 2 1/4", and veneers as thin as 1/64th" can be sanded more efficiently with an additional 3 sq. feet of workspace. The in-feed and out-feed support is also a real advantage for easier handling of longer, rough-sawn boards.

Just Get It...FREE! For a limited time the In-feed and Out-feed Tables are yours with the purchase of a 16-32 Plus Drum Sander. So if you're still wrestling with a belt sander, see your Performax Dealer today for a demonstration of how easy sanding can be with a Performax Drum Sander. ***Call 1-800-334-4910 for a FREE brochure and the dealer nearest you.***

DRUM & BRUSH SANDERS DESIGNED FOR 10 YEARS PERFORMAX PRODUCTS, INC. MAXIMUM PERFORMANCE, MAXIMUM VALUE PROUDLY MADE IN THE U.S.A.

12257 Nicollet Ave So. • Burnsville, MN 55337 • (612) 895-9922

Circle No. 78

Stand with Delta and we'll give you the shirt off our back.

Send coupon and a copy of your bill of sale for either the Sidekick Saw Stand or the 'Kickstand Portable Work Stand, and we'll send you your choice of a Delta cap or T-shirt. Stand up and be counted. For your nearest Delta dealer, call 800-438-2486. www.deltawoodworking.com

Send to: Delta International Machinery Corp., 246 Alpha Dr. Pittsburgh, Pa 15238

DELTA

Name _____

Street Address _____

City/State _____ Zip Code _____

Please send me: ❑ Delta Cap ❑ Delta T-Shirt ❑ Large ❑ X-Large

Offer available through December 31, 1997

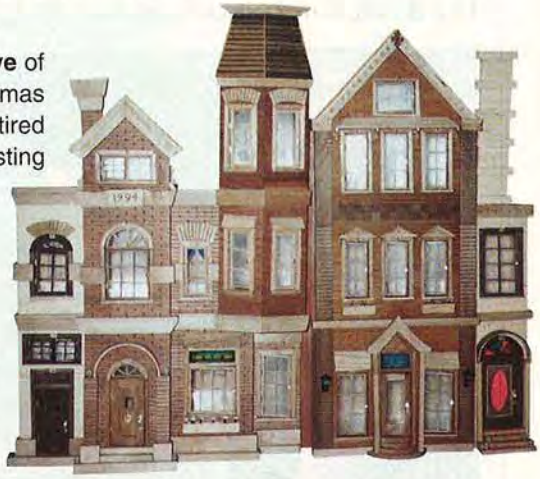
Project Showcase

We feature your best work

Print this article

Village's doors and windows count days to Christmas

Asked to build an advent calendar that wasn't "a bunch of boxes," **Ruth Waye** of St. Charles, Missouri, took inspiration from those popular decorative Christmas villages. Her village calendar stands 27" tall and spans almost three feet. Retired from teaching (and other occupations, "because I have found many interesting things to work at"), Ruth, 71, says she's been working with wood for at least 60 years.



Serving tray showcases exotic woods and veneers

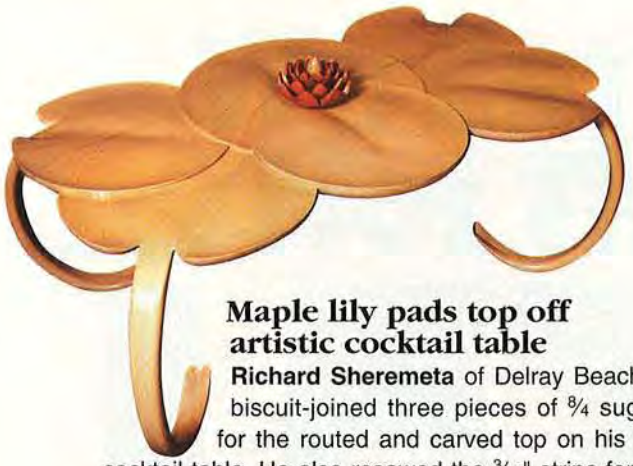
This serving tray, like others that **Matt Morian** has built, started out as a piece of 5/16" aircraft birch plywood. Matt, a Jasper, Texas, ag implement dealer, veneered the tray with satinwood and lacewood, adding a ready-made shell inlay and banding. Koa edging and handle brackets, wenge feet, and turned pink ivory handles complete the 13×19" tray.

Cherry china cabinet tops Texan's woodworking so far

"This is the capstone of my nearly 50 years of furniture making," says **Don Jackson** of his Queen Anne china cabinet. Don, a university registrar living in Blanket, Texas, spent six months building the 92"-tall cherry cabinet for his wife's birthday. His design incorporates features taken from photos and illustrations in books. "Marilynn is proud of it," Don reports, adding, "this is all that matters to a woodworker-husband, isn't it?"

Father-to-be fills nursery with handmade furniture

While **Chad Frey** and his wife, Michele, anticipated the birth of their first child, Chad got busy in his San Jose, California, workshop outfitting the nursery. He built a crib (from *WOOD®* magazine plans), some wall shelves, and this oak dresser of his own design. The birth of Christopher Michael Frey has undoubtedly altered household routines. But Chad, a plumber by trade, says he still finds time for woodworking.



Maple lily pads top off artistic cocktail table

Richard Sheremeta of Delray Beach, Florida, biscuit-joined three pieces of ¾ sugar maple for the routed and carved top on his Lily Pond cocktail table. He also resawed the 3/16" strips for the bent-leg laminations from ¾ stock. A civil engineer and longtime woodworker, Richard has won many awards for his artistic furniture. This table, featuring a carved Honduras mahogany lily blossom, is 18" tall, with a 24×42" top.

Attention to detail enlivens Old West carvings

Driven by his interest in the Old West, woodcarver **Lynn Doughty** recreates frontier times in detailed tableaux and caricature figures, such as the old prospector shown. "While my work is of a humorous nature, I strive to ensure it remains correct in both detail and setting," the Jay, Oklahoma, carver says. He's working now on a saloon scene.

Clocks chime relief for busy wife, mother, woodworker

A 4-H woodworking project 20 years ago blossomed for **Jeannie McConkey**. Now she designs and builds grandfather clocks and other furniture. Jeannie has given her two sons clocks, and she's constructed a rolltop desk and gun cabinet for her husband and a china hutch for herself. A University of Nebraska soil fertility researcher living in Scottsbluff, Nebraska, Jeannie retreats to her shop for both fun and stress relief.

High-style rustic furniture incorporates carved decor

Jack Orrick of Muncie, Indiana, taught himself woodcarving about five years ago. Later, the retired lawman started building rustic furniture, and decided to incorporate carving into his designs. "Every piece is a new challenge because nature helps determine the final creation," Jack says. He crafted this 42"-tall chair from gnarled, bark-on beech wood. Carved heads with long, winding beards top the back posts.

Continues on page 16

Project Showcase

Continued from page 15

Gathering the wood was the longest part of secretary project

Charlie Bodine of Big Lake, Minnesota, collected different types of wood for more than a year before building this drop-front secretary. The 40" tall desk features figured maple, distressed cherry, and rosewood, with biscuit and dowel joinery. "Woodworking has been in my blood for more than 20 years, but I have only been a cabinetmaker for the last six years," says Charlie, who works for a central Minnesota cabinet shop.

Sideboard gave woodworker a chance to try stone cutting

Steven Murphy took some liberties with the Craftsman style, topping his sideboard with about 75 pounds of solid granite, which he cut and polished himself. Built to add workspace to a small kitchen, the piece wouldn't be as practical with a wood top. Steven picked up woodworking from his father, first cutting wood on a scrollsaw built by his grandfather. Most of his father's tools now reside in Steven's Berkeley, California, basement workshop.

SHOW US YOUR STUFF

Show us your best original work (but, no decks or other home improvements, please). Items built from kits or directly from published plans are ineligible, as are carvings from roughouts. To submit your project for consideration:

•Send sharp color slides or glossy prints of the item. (We can't use Polaroid photos.) Avoid cluttered or busy backgrounds in your shots. Photos cannot be returned.

•Explain what the project is or what it does—we don't want to call your lamp table a plant stand.

•Describe features, wood, finish, and overall dimensions.

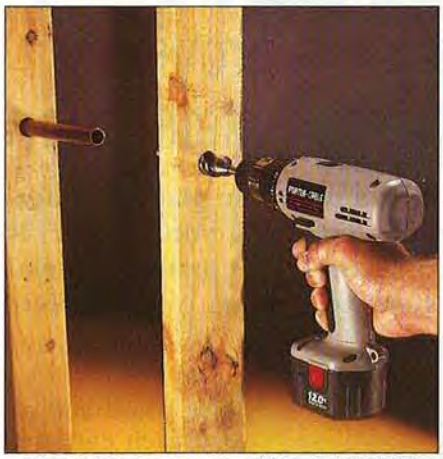
•Tell us a little about yourself, too; how old you are, your occupation (or former one, if you're retired), how long you've been a woodworker, and so forth. Include a daytime phone number.

•Then send everything to:

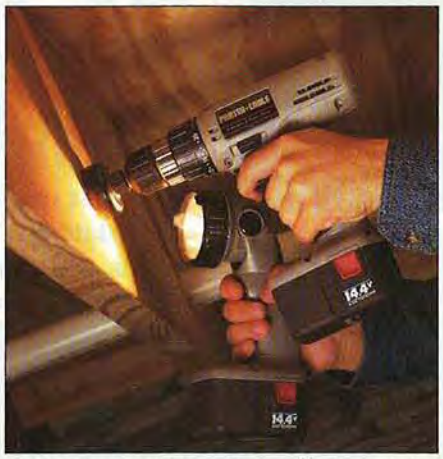
WOOD® Magazine
Project Showcase
1912 Grand Ave.
Des Moines, IA
50309-3379

Note: *We cannot provide plans, drawings, patterns, measurements, bills of materials, additional photographs, descriptions, or construction details for projects shown. Nor can we pass out addresses or telephone numbers of Project Showcase exhibitors.*

We Cut The Cord, Not The Power.



3/8" 12V T-Handle (Model 9862)



3/8" 14.4V T-Handle with Flashlight (Models 9872 & 871)

3/8" 12V Push-Handle with Flashlight (Models 9863 & 861)

3/8" 14.4V T-Handle (Model 9872)

3/8" 9.6V T-Handle (Model 9830)

1/2" 14.4V Push-Handle (Model 9873)

No Job's Too Tough For Porter-Cable's Drill Team.

Auger bits. Wood screws. Lag bolts. Drywall screws. Whatever application you can dream up, a Porter-Cable cordless drill can make it happen. With all the power and durability you've come to expect from every Porter-Cable power tool.

Only Porter-Cable can offer these outstanding features:

- •Advanced Magnequench™ rare-earth magnet motor for higher torque and longer run times
- •High capacity batteries run 30% longer between charges than standard batteries
- •20 position adjustable clutch provides up to 307 in/lbs of torque
- •Heavy-duty Jacobs™ keyless chuck provides maximum gripping power
- •Includes advanced charger with battery diagnostics for more efficient charging

So if you're looking for a cordless drill with the guts to tackle any job, check out the drill team from Porter-Cable. To learn more, visit your local Porter-Cable retailer or call 1-800-487-8665 (519-836-2840 in Canada) for the dealer nearest you.

PORTER-CABLE

Professional Power Tools Since 1906

http://www.porter-cable.com

Porter-Cable is proud to be a co-underwriter of The New Yankee Workshop on public television.

Table-mount your router—the easy way

A plastic plate provides simple, secure installation

A phenolic mounting plate lends your router table a professional look, and eases router installation and removal.

You just can't beat a phenolic plastic mounting plate for table-mounting your router. It holds the router securely, yet makes removal easy. Here's how to install one in your router table.

Cut the table opening

1 Position the router mounting plate on the tabletop. Locate it for convenience, ensuring that the router will clear any under-table obstructions. Trace the plate's outline on the tabletop as shown in *step 1* of the illustration *below*.

2 Next, lay out the cutting line for the tabletop opening. To do this, draw a line ½" inside the router plate outline, as shown in *step 2* of the drawing. Mark a point 2" each direction from each corner, and connect them to make corners like those shown.

3 Drill a start hole for your jigsaw's blade where shown. Cut the opening in the tabletop.

Rout the recess

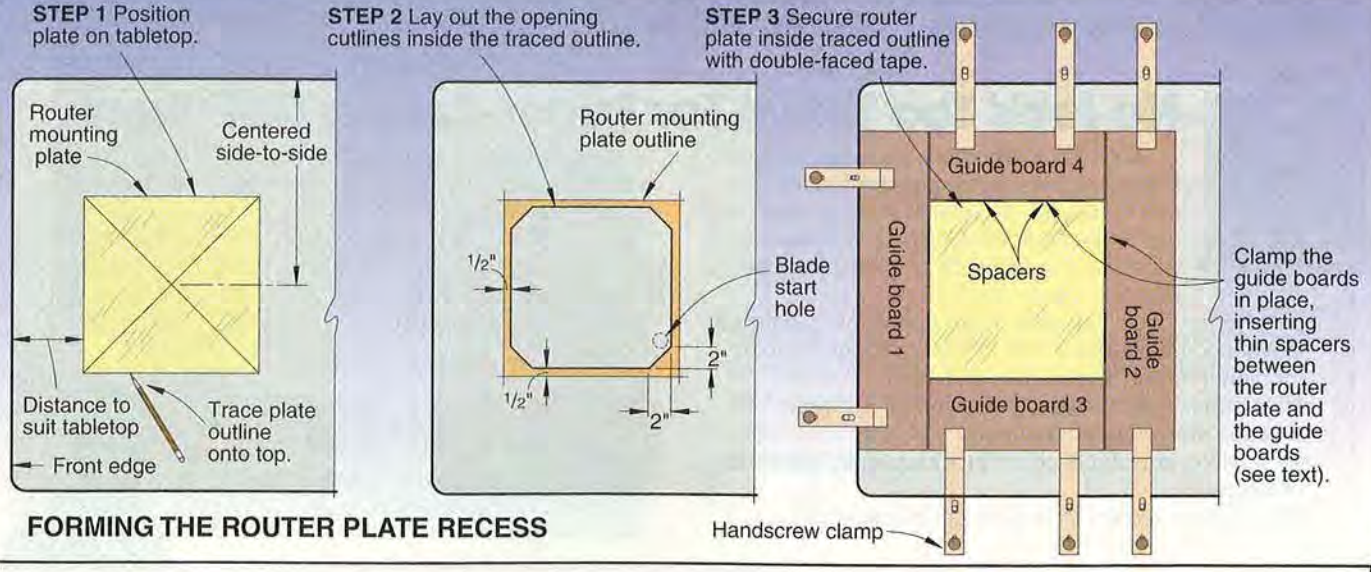
1 Cut four routing guide boards from ¾"-thick solid stock, 4-5" wide. You'll need two pieces the same length as your router mounting plate and two more as long as the sum of the plate width plus two guide-board widths. Each should have a straight, true edge that's square to both ends.

2 With strips of double-faced tape at the corners, affix the router plate to the tabletop inside the drawn outline. Lay one of the long guide boards on the tabletop, abutting the front edge of the mounting plate, as in *step 3* of the drawing. Slip a thin spacer, such as a business card, between the edge of the guide board and the mounting plate at each end, then clamp the board.

3 Clamp the remaining guide boards around the plate as shown, spacing each board away from the plate with business-card shims. With the boards in position, remove the router mounting plate and the shims.

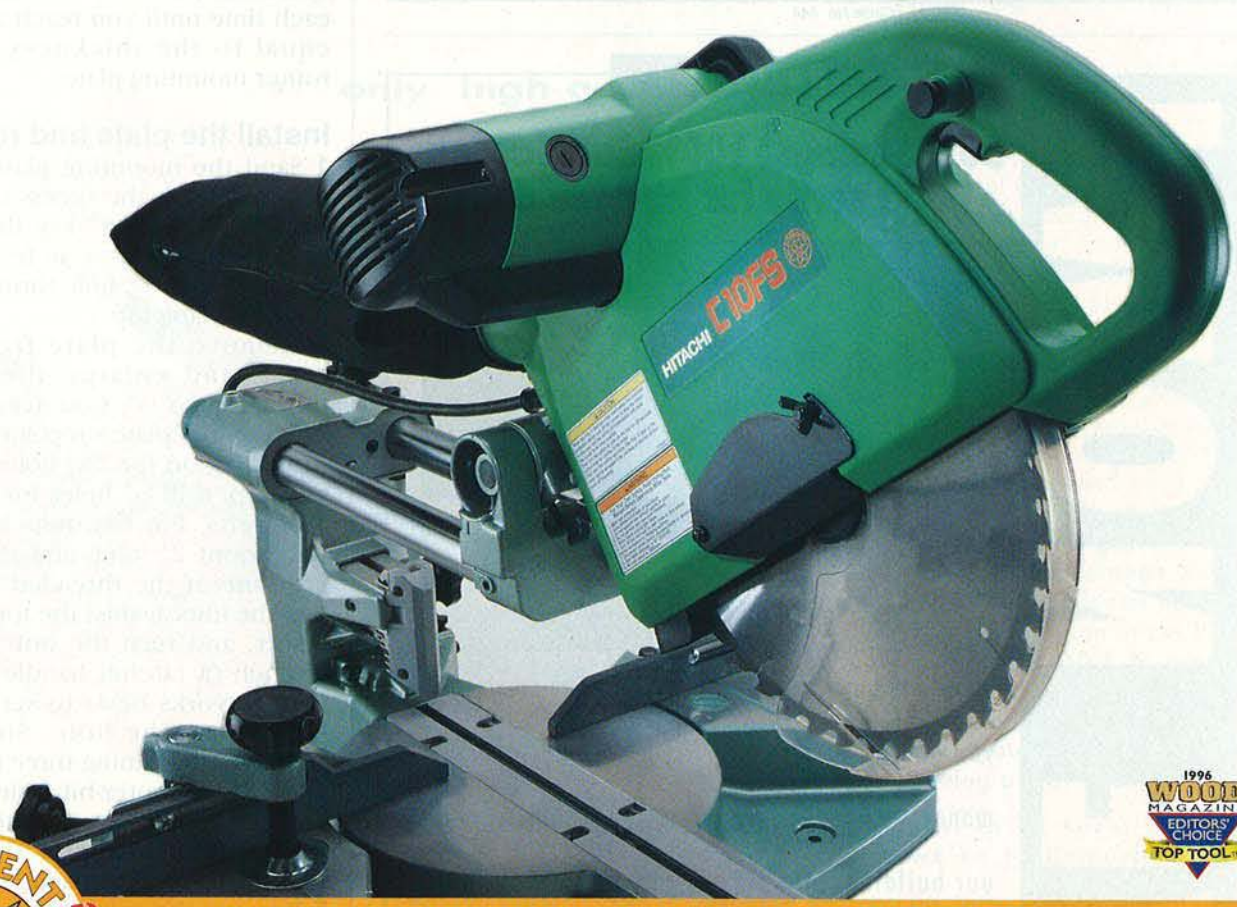
4 Install a straight bit with top-mounted pilot bearing in your router. (Bits of this type go by a variety of names, among them: pattern, flush-trimming, hinge-mortising, bottom-cleaning, or stair-routing. We used an Oldham no. 340-4FT bit.)

Continued on page 20


STEP 1 Position plate on tabletop.
Router mounting plate
Centered side-to-side
Distance to suit tabletop
Trace plate outline onto top.
Front edge
STEP 2 Lay out the opening cutlines inside the traced outline.
Router mounting plate outline
1/2"
Blade start hole
2"
1/2"
2"
STEP 3 Secure router plate inside traced outline with double-faced tape.
Guide board 4
Guide board 1
Spacers
Guide board 2
Guide board 3
Clamp the guide boards in place, inserting thin spacers between the router plate and the guide boards (see text).
Handscrew clamp

FORMING THE ROUTER PLATE RECESS

THAT WHINE YOU HEAR IS JUST THE COMPETITION



1996 WOOD® MAGAZINE EDITORS' CHOICE TOP TOOL™

INDEPENDENT CERTIFIED TEST LAB

THE TESTS ARE IN. HITACHI IS THE SMOOTHEST, MOST ACCURATE, FASTEST, AND MOST DURABLE SAW EVER!

	Hitachi C10FS	DeWalt DW708	Makita LS1211
HITACHI HAS THE SMOOTHEST CUT			
90° Cross Cut	1st	2nd	3rd
90° Bevel	1st	2nd	3rd
45° Cross Cut	1st	3rd	2nd
45° Bevel	1st	2nd	3rd
HITACHI IS THE MOST ACCURATE			
45° Bevel	1st	2nd	3rd
45° Compound	1st	2nd	3rd
HITACHI IS THE FASTEST, MOST DURABLE SAW			
Cutting Speed	1st	2nd	3rd
Consistent Blade Speed During Cut	1st	3rd	2nd
Lower Noise Level	1st	2nd	3rd
Less Vibration	1st	2nd	3rd

*Test conducted by Independent certified testing laboratory. For test results contact HITACHI KOKI U.S.A., LTD.

HITACHI® POWER TOOLS

Precision Built Power

800-546-1666
For A Dealer Near You

$50.00 Rebate
See Dealer For Details.

"Lil' Executive Desk"

"Paw Paw, will you build me one for Christmas?"

Fun and quick to make. Your child or grandchild will enjoy a handcrafted "Lil Executive Desk" for years and it will become a *"hand me down"* for generations. Requires very little material and only 8 hours to construct.

Stands just 22" High.
Takes Only 8 Hours To Construct.

Kit includes: Plans, materials list, plastic laminate (choice of 3 colors, Pine Green, Deep Country Blue, Cranberry), 2 brass drawer pulls, 2 sets of drawer slides, (four) 45° corner braces, and 6' of 3/4" oak veneer stripping.

Plans and Materials List - $14.95 (Plus 1.95 S&H)
Plans, Materials List and Kit - $59.95 (Plus 12.95 S&H)

1-800-465-9680

Southern Pride Crafts
240 Estate Drive - Pineville, LA 71360
Check, Money Order, Master Card, Visa, American Express

Circle No. 444

SAVE NOW!

Steel Buildings

50% Savings* 100% Satisfaction. Don't settle for half the deal.

When you buy a SteelMaster building we make sure you get the whole deal. We'll not only save you money, we'll make sure you're 100% satisfied with our building. SteelMaster provides the highest quality steel arch buildings in the world.

Special Notice:
Additional discounts available on selected factory unclaimed buildings:
25x36 • 30x48 • 40x82 • 50x120

Free: 16 Page Color Brochure

STEELMASTER

* up to 50% off retail on selected models and sizes

CALL TODAY 1 800 888-4606

SteelMaster Buildings, 353 Industrial Park Dr, Boone, NC 28607

Circle No. 2030

Table-mount your router

Continued from page 18

5 With the router base resting on the surface of the guide boards, adjust the cutting depth to rout ⅛" deep into the tabletop. Then, guiding the bit's pilot bearing along the inside edge of the guide boards, rout the recess. Make additional passes, lowering the bit each time until you reach a depth equal to the thickness of the router mounting plate.

Install the plate and router

1 Sand the mounting plate's corners to match the recess's rounded, routed corners. Lay the plate in the recess, and ¾" in from each corner drill a 1/16" hole through the plate and tabletop.

2 Remove the plate from the table, and enlarge the holes through it to ¼". Countersink the holes on the plate's top surface.

3 Guiding on the 1/16" holes in the tabletop, drill ⅜" holes for threaded inserts. Put two nuts on a ¼" bolt about 2" long, and thread it into one of the threaded inserts. Jam the nuts against the top of the insert, and turn the bolt with a wrench (a ratchet handle with a socket works best) to screw the insert into the hole. Similarly install the remaining three inserts.

4 Bore the router-bit hole at the center of the plate. Size the hole ⅛" larger in diameter than the largest bit you'll be using.

5 Remove the router's base plate. Using it as a template, mark locations for the screws that attach the router to the plate. Drill and countersink holes of appropriate size for the screws used. Attach the router to the plate with flathead machine screws.

6 Drop the plate and router into the recess. Secure the plate with a ¼"-20×¾" flathead machine screw at each corner.

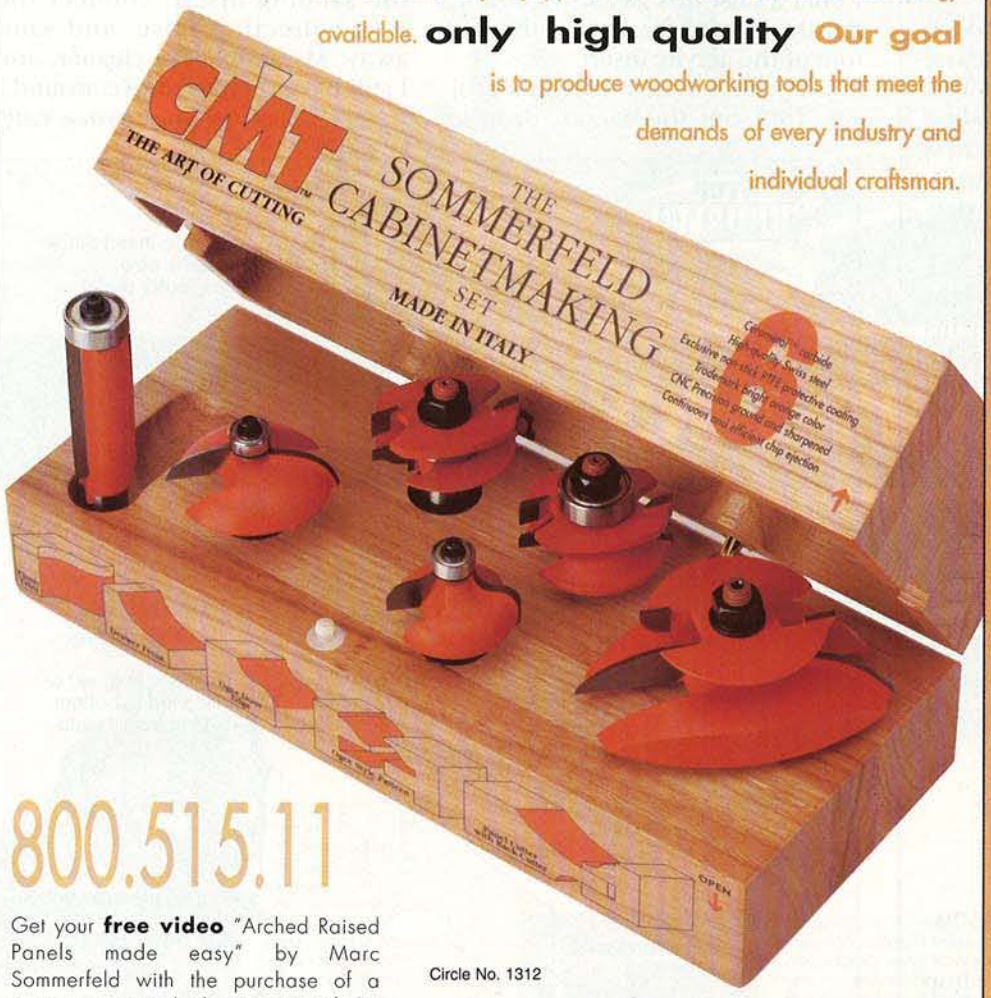
Illustrations: Roxanne LeMoine; Lorna Johnson
Photograph: Hetherington Photography

Looking for THE REAL THING?

KNOW THE FACTS:

made in Italy Since its beginning in a small workshop in the center of Pesaro, Italy over **30 years ago,** CMT Utensili has always been a worldwide recognized symbol for quality.

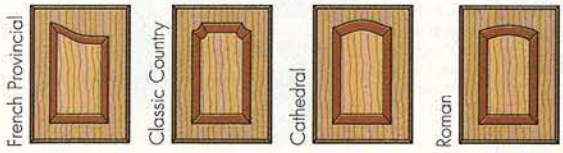
only one CMT Two generations of the Tommassini family have worked and invested to make **"Costruzioni Meccaniche Tommassini"** modern and efficient, fully equipped with the most advanced technology available. **only high quality** **Our goal** is to produce woodworking tools that meet the demands of every industry and individual craftsman.



800.515.11

Get your **free video** "Arched Raised Panels made easy" by Marc Sommerfeld with the purchase of a 6 piece set and choose one of the 4 template styles available to make the arched raised panels shown here.
Call or e-mail CMT USA now and request your **free full-color catalogue!**

Circle No. 1312



But what is it that sets us apart from all the rest?

It could be that we use only the best materials available, such as solid bar stock steel from Van Moss Stahl in Switzerland for the shanks and bodies of our bits to give each bit extra strength and support. Look for the points at the top and bottom of the shank of a CMT bit - we concentrically balance grind all of our bits to guarantee perfect, no wobble performance. The carbide tips and solid carbide bits are manufactured from an exclusive micrograin carbide from Céramétal in Luxembourg to guarantee exceptionally clean, accurate cuts and extended wear.

But probably the easiest way to recognize a genuine CMT bit is by its orange color. Only CMT applies an exclusive orange non-stick PTFE coating at 750°F to protect and prolong the life of your bits and it's just another way to let you know that you are getting a CMT bit.

Just to be sure, we've trademarked it.

So now you know, if you want only the highest quality router bits, boring bits and saw blades in your workshop, you want CMT. Look for the orange ones, made in Italy.

Available only from authorized dealers of CMT Utensili and CMT USA.

© 1997 CMT Utensili Srl - TM: CMT, the CMT logo and the orange color applied to tool surfaces are trademarks of CMT Utensili Srl

CMT™ the only ORANGE one™

CMT USA, Inc. 307-F Pomona Drive Greensboro, NC 27407 Toll free 1-888-CMT-BITS Free fax 1-800-268-9778 e-mail: cmtusa@aol.com www.cmtutensili.com
CMT Utensili Srl Via della Meccanica - 61020 Chiusa di Ginestreto PS - Italia - Tel. ++39 721 482204 Fax ++39 721 481021 - e-mail: cmtsrl@pesaro.com

Top Shop Tip winner Martin Beijer displays a trunk he recently built.

Although he's been a woodworker for only seven years, Martin Beijer has built a lot of projects in that time, including an entertainment center and a knock-down wagon. Lately, he's focused on producing decorative wooden boxes.

Even when building these relatively small boxes, Martin must take full advantage of his limited workshop space. So, he makes multiple use of tools and work surfaces. For example, he gets triple duty out of his tablesaw extension table, *right.*

Your solution to a particular woodworking problem may be worth $40. If it's selected as the Top Shop Tip, you'll win a tool prize valued at $250 or more. To submit a tip, send a letter, including your daytime phone number, and a photo or drawing of your idea, to:

Tips from Your Shop
(And Ours)
***WOOD*® Magazine**
1912 Grand Ave.
Des Moines, IA 50309-3379

We try to publish original shop tips only, so please send your idea only to *WOOD* magazine. Also note that we cannot return submissions. Thanks!

Bill Krier

ASSISTANT MANAGING EDITOR

Extension table pulls extended duty

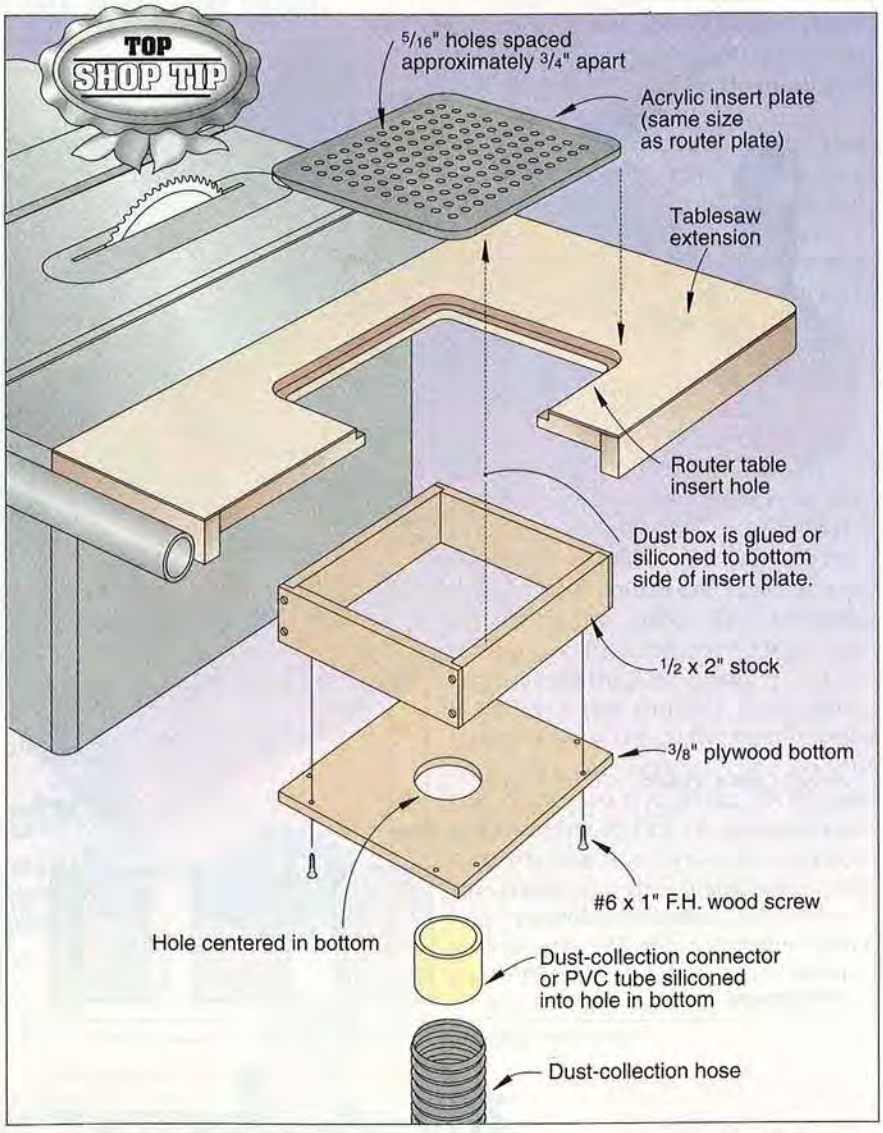
I already have my router mounted in the extension wing of my tablesaw to save space. But when I wanted to build a downdraft sanding table, I figured out a way to get triple duty out of the extension.

First, I cut a second acrylic insert the exact size of the one for my router. Then, I marked out and drilled a gridwork of 5/16" holes spaced 3/4" apart in the insert. Next, I built a dust box as shown *below.* Finally, I glued the box to the bottom of the acrylic insert.

Now when I need to sand a project, I lift out the router, drop in the sanding insert, connect the dust-collection hose, and sand away. My shop stays cleaner, and I still have room to move around.

—Martin Beijer, Castak, Calif.

For submitting the Top Shop Tip for this issue, Martin wins a DeWalt DW321K Heavy-Duty Jigsaw. Congratulations, Martin!


TOP
SHOP TIP
5/16" holes spaced approximately 3/4" apart
Acrylic insert plate (same size as router plate)
Tablesaw extension
Router table insert hole
Dust box is glued or siliconed to bottom side of insert plate.
1/2 x 2" stock
3/8" plywood bottom
#6 x 1" F.H. wood screw
Hole centered in bottom
Dust-collection connector or PVC tube siliconed into hole in bottom
Dust-collection hose

Continued on page 24

Print this article

This Delta exclusive gives you a lock on snipe control. Patent-pending cutterhead snipe control lock stabilizes the cutterhead during operation, for complete rigidity.

Those who've had a sneak preview have nice things to say about it. Priced in the middle of the pack–we're betting it'll end up at the head of its class.

Quick-change 2-knife system includes two high-speed steel, double-edged, reversible knives, a wrench and installation tool for quick and accurate knife changes.

Plane your own stock up to 12½" wide and 6" thick. All the way down to ⅛" thick.

Easy-to-read English/Metric Scale makes fast work of depth-of-cut settings.

Beware of snipers.

Grab it and go. Weighing in at only 65 pounds, it'll go to work wherever you want it to. Stash it out of the way when it's not in use.

Properly adjusted infeed/outfeed tables can go a long way toward snipe reduction. A low-friction stainless steel base, in combination with these adjustable infeed/outfeed tables, gives you a large smooth surface for moving stock through your planer.

THE POWER OF THE PROS

DELTA
WOODWORKING MACHINERY
A Pentair Company

Practical as they are, most portable planers are notorious snipers. If you're looking to minimize sniping without sacrificing portability, check out Delta's new 12½" Portable Planer (Model 22-560), with its exclusive snipe control lock. Call toll free for the name of your nearest Delta dealer. Delta International Machinery Corp., 800-438-2486. In Canada, 519-836-2840.

Proud sponsor of *The New Yankee Workshop* on PBS.

http://www.deltawoodworking.com/delta

"All my tools should be this good!"

The Accu-Miter® is a professional miter gauge that makes perfect angles easily. Shot-pin action assures dead-on accuracy for common angles — plus a precise protractor scale for everything in between!

We do not recommend operating without the saw blade guard, as is shown here.
US Patent #5,038,486

Optional accessories: manual clamp– pneumatic clamp– 3/8" x 3/4" miter bar–

JDS COMPANY

Precision Woodworking Equipment

Call or write for our free brochure.

800 Dutch Square Blvd., Suite 200, Columbia, SC 29210
1-800-382-2637 / SC 803-798-1600

$149

Maybe 30 bucks will get you off the fence.

If you've been thinking about getting rid of that old clunker of a fence, maybe this will get you going.

Choose the premium fence that best fits your needs: A versatile, precision Delta Unifence® or a commercial-duty Biesemeyer® Fence. Make your purchase between August 1 and December 31, 1997, and we'll send you a check for $30. That's one simple win-win situation. Call for the number of your nearest participating Delta dealer. Delta International Machinery Corp., 800-438-2486. www.deltawoodworking.com

TIPS FROM YOUR SHOP (AND OURS)

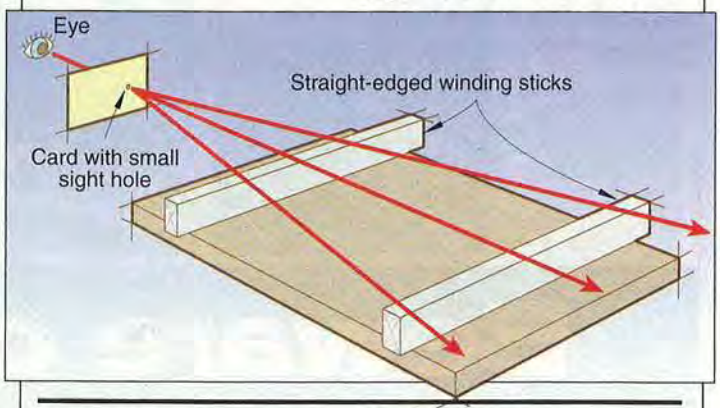
Continued from page 22

Pinhole aperture brings flatness into focus

To check the surface of a panel for twists or warps, many woodworkers use winding sticks. You lay two straight-edged sticks on the panel and sight across the top edges of the sticks. If the panel isn't flat, the edges of the sticks won't appear to be parallel. I've used this method in the past, but as I've gotten older, my eyesight doesn't allow me to focus on both sticks at once.

To overcome this problem, I punch a small hole (less than 1/32") in a note card. Sighting through this "pinhole aperture," as shown *below*, increases the depth of field and brings everything into clear focus. I use the same technique to sight along the edge of boards to check them for straightness.

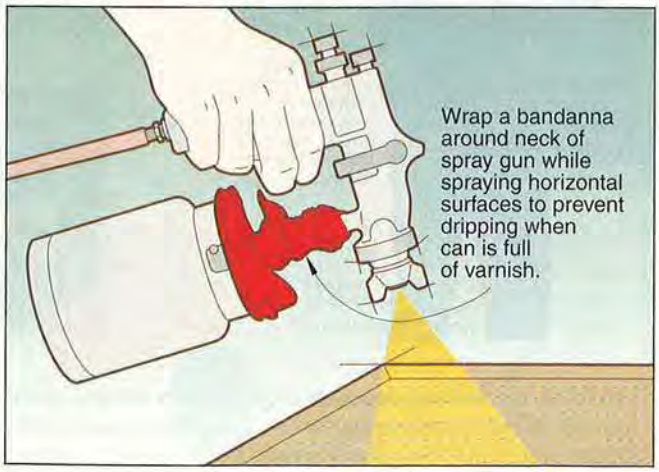
—Jeff Gaynor, Rootstown, Ohio



Bandanna catches paint gun drips before they fall

It seemed that whenever I tipped my spray gun to apply finish to a horizontal surface, a drip from the canister would spoil my work. To keep drips in check, I wrap a bandanna around the neck of the spray gun. The bandanna absorbs any leaks before they drip so I can concentrate on laying down smooth, even coats of finish.

—Perry McFarlin, Assistant Art Director, WOOD® *magazine*


Wrap a bandanna around neck of spray gun while spraying horizontal surfaces to prevent dripping when can is full of varnish.

Continued on page 26

"Star Tools...Providing Quality Woodworking Machinery to Industry and Craftsmen for over 15 Years...Featuring Machinery Designed and Built to Meet the Needs of Woodworkers Throughout America..."

STAR TOOLS, LLC.

TOLL FREE **1-888-678-8777**

E-mail address: Startools@aol.com

MON – FRI, 7:00 AM – 5:00 PM (Pacific Time)

2 YEAR WARRANTY NOW AVAILABLE

CALL FOR WEEKLY SPECIAL...

WE HAVE A COMPLETE INVENTORY OF REPLACEMENT PARTS IN STOCK!

8" JOINTER

- 2 H.P. MOTOR 220 VOLT
- 3 KNIFE JACKSCREW CUTTERHEAD
- 8" X 65" BED LENGTH
- CENTER MOUNT FENCE

S3107N

$785.00

NEW

(SHOWN WITH OPTIONAL MOBILE BASE)

1-1/2 H.P. SHAPER

- 1-1/2 HP SHAPER
- 1/2" & 3/4" SPINDLES
- 2 SPEEDS

S3302

$420.00

3 H.P. SHAPER

- 1/2" & 3/4" & 1" SPINDLES
- 2 SPEEDS/ REVERSIBLE

S3303

$740.00

OSCILLATING SPINDLE SANDER

- 1 H.P. 110/ 220 VOLT
- 1725 RPM
- 24" X 24" TABLE TILTS 45°

S3407

$465.00

12" 5 HP CABINET SAW

S3206

NEW

SPECIAL INTRODUCTORY OFFER INCLUDES:

- TABLE SAW WITH 36" RIP
- STAR LOCK FENCE WITH MICRO ADJUSTER
- MOTOR COVER
- BUILT IN 4" DUST PORT

SPECIAL INTRODUCTORY PRICE

$1,475.00

(SHOWN WITH OPTIONAL MOBILE BASE)

10" CABINET SAW 3 H.P.

- MOTOR COVER
- MICRO ADJUSTER
- FREUD LU82 10"
- 36" RIP CAPACITY
- BUILT-IN 4" DUST PORT
- 220V MAGNETIC CONTROLS
- HEAVY DUTY TRUNNIONS

S3202

SPECIAL PRICE

$995.00

AVAILABLE AT THE SAME PRICE 5 H.P. 3 PHASE

20" BANDSAW

- 3 H.P. 220 VOLT
- 12" RESAW CAPACITY
- ROLLER GUIDES

S3506

$1,195.00

16" BANDSAW

- 2 H.P. 110/220 VOLT
- DUST PORT
- FOOT BRAKE
- 9" RESAW CAPACITY
- CAST IRON WHEELS

S3502N

$650.00

NEW

15" BANDSAW

- 1 H.P. 110 VOLT
- DUST PORT
- FOOT BRAKE
- 9" RESAW CAPACITY
- CAST IRON WHEELS

S3501N

$450.00

NEW

25" DUAL DRUM SANDER

- 5 H.P. 220 VOLT
- 2 SPEEDS 11 & 17 FPM/ REVERSIBLE
- CAST IRON WORK TABLE

S3409

$1,295.00

15" 3 H.P. PLANER

- 3 H.P. 220 VOLT
- 3 KNIFE CUTTERHEAD
- ADJUSTABLE BED ROLLERS

S3715

$875.00

(SHOWN WITH OPTIONAL MOBILE BASE)

2 H.P. DUST COLLECTOR

- 220 VOLTS
- 1182 CFM
- **FREE** 10" CLEAR HOSE

S3820

$250.00

HOLIDAY SPECIAL

8" JOINTER

- 1-1/2 H.P. 220 VOLT
- 3 KNIFE CUTTERHEAD
- 8" X 65" BED LENGTH

S3102

$600.00

6" JOINTER

- 1 H.P. 110/220 VOLT
- 3 KNIFE CUTTERHEAD
- 47" BED LENGTH

S3101KD

$300.00

PRICES & SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ALL MACHINERY SHIPPED F.O.B. SANTA FE SPRINGS, CALIFORNIA OR CLARKSBURG, WEST VIRGINIA

MAIN OFFICE SHOW ROOM
9825 PIONEER BLVD.
SANTA FE SPRINGS, CA 90670
TEL: 562-654-3065
FAX: 562-654-3066
OPEN: MON – FRI 8:00 a.m. – 5:00 p.m.

WEST COAST

MasterCard

FREE CATALOG

EAST COAST

VISA

SHIPPING WAREHOUSE SHOWROOM
12 ARMORY ROAD, CLARKSBURG, WV 26301
(TECH SUPPORT ONLY) TEL: 304-624-6685
FAX: 304-624-8928
WEST VIRGINIA STORE OPEN: MON – FRI 8:00 a.m. – 5:00 p.m. and 1st & 3rd SATURDAY, 9:00 a.m. – 1:00 p.m.

The Intelligent One-Man Shop.

FIVE PROFESSIONAL QUALITY MACHINES IN ONE.

- ✓ 3 HP 10" tablesaw with 50" crosscut sliding table and 38" rip capacity.
- ✓ Cast iron mortiser
- ✓ Cast iron tables
- ✓ 3 HP shaper
- ✓ 12" jointer
- ✓ 12" planer
- ✓ 20-second function change

Call now for a free video!

LAGUNA TOOLS

(800) 234-1976

(714) 494-7006

http://www.lagunatools.com

2265 Laguna Canyon Road

Laguna Beach, CA 92651

Circle No. 615

Or should we say, "two." Two free re-sharpenings on every Delta Industrial Carbide-Tipped Saw Blade you buy. Deal or no deal, these "lifetime" blades are the ultimate. Hot-rolled chrome steel body, fine-grain carbide tips, precision ground and balanced. For life. With a lifetime warranty to boot. And the first two re-sharpenings are on us. For your nearest dealer call, Delta International Machinery Corp., 800-438-2486. www.deltawoodworking.com

THE POWER OF THE PROS

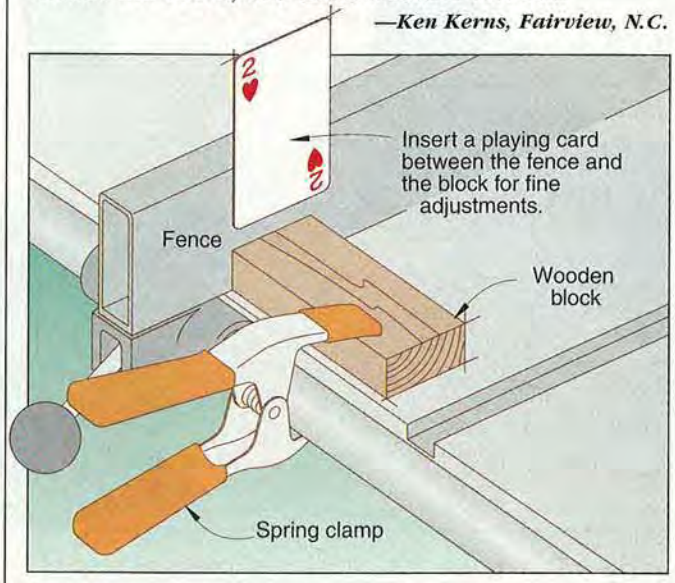
DELTA WOODWORKING MACHINERY
A Porter Company

Continued from page 24

Micro-adjust your tablesaw fence with playing cards

My tablesaw fence doesn't have a micro-adjustment knob, but that doesn't stop me from making finely tuned cuts. To make a cut on the money, I make a test cut in scrap and check the measurement. Then I slide a wooden block against the inboard or outboard side of the fence—depending on which way I need to adjust the cut—and clamp the block to the saw table. Next, I loosen the fence, insert a playing card or two between the block and the fence, relock the fence, and make another test cut.

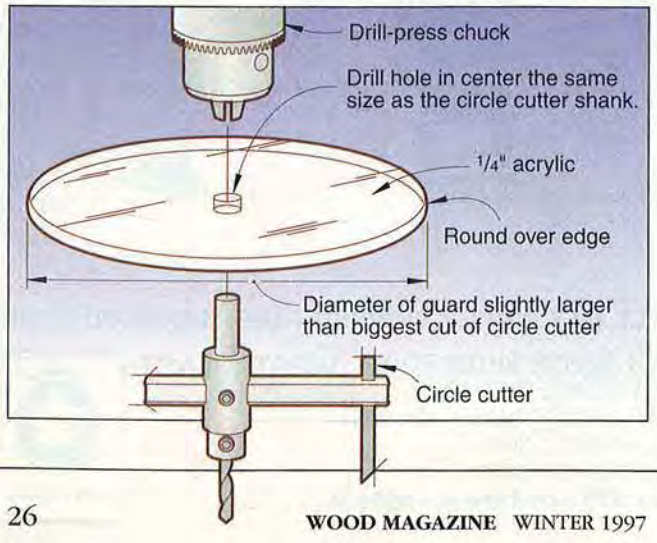
—Ken Kerns, Fairview, N.C.



Plastic disc guards fingers from spinning circle cutter

I recently purchased an 8" adjustable circle cutter for cutting clock-face holes. But the spinning arm of the cutter scared the heck out of me when I used it. So, to keep my fingers away from the danger, I made a guard from ¼" acrylic as shown *below*. The guard fits between the cutter and the drill-press chuck, and the clear plastic lets me see the work.

—Pat Grashorn, Gilcrest, Colo.


Drill-press chuck
Drill hole in center the same size as the circle cutter shank.
1/4" acrylic
Round over edge
Diameter of guard slightly larger than biggest cut of circle cutter
Circle cutter

A breakthrough in wet/dry vac filter performance
From the makers of GORE-TEX® Fabric
Traps five times more fine dust than ordinary wet/dry vac filters
Even drywall dust. Tests prove CleanStream® Filters trap 99.7% of all particles at 0.3 microns, compared to less than 20% for conventional filters.
Truly washable for longer life
CleanStream® Filters shed dirt with a simple rinse under running water. By combining moisture-resistant material with exclusive "non-stick" technology, they resist clogging and won't degrade when used to vacuum liquids.
Fits all major brands of wet/dry vacs
Whether you currently use a cloth disc, cartridge or bag filter, there's a CleanStream® Filter to replace it – with no modification to your wet/dry vac. Plus, each filter carries a full one-year limited guarantee.
ONE-YEAR GUARANTEE LIMITED
Buy CleanStream® Filters at your local home center or hardware store, or call 1-800-758-6755.
CleanStream®
WET/DRY VAC FILTER
GORE
Cleanstream, Gore and GORE-TEX are trademarks of W.L. Gore & Associates, Inc.
Copyright® 1997 W.L. Gore & Associates, Inc.

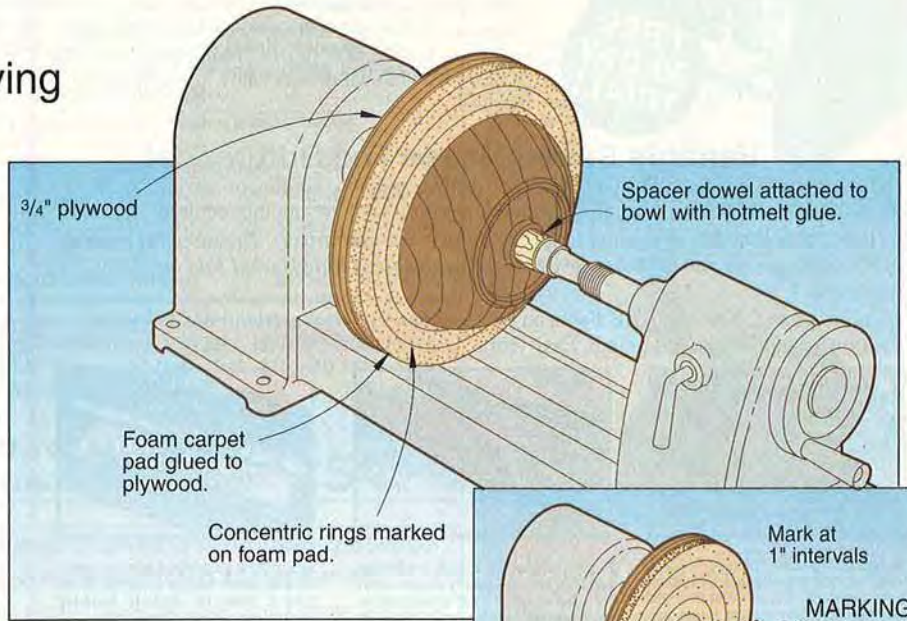
Carpet pad makes relieving bowl bottoms a breeze

Cutting the relief in the bottom of a turned bowl is easy now that I've developed a padded faceplate. I mounted a large ¾" plywood disc to a standard lathe faceplate. Then, using contact cement, I glued a piece of foam carpet pad to the front side of the plywood disc.

Starting about 2" from the center, I marked out concentric circles at 1" intervals using a felt-tip marker as shown in the inset drawing *lower right*. The circles allow me to center bowls of different diameters on the foam-covered face of the plywood disc.

To mount a bowl, I use a dab of hotmelt glue to secure a short length of 1" dowel to the bottom of the bowl. The tailstock center fits against the dowel and holds the bowl firmly against the foam-covered disc. To complete the recess, I carefully remove most of the stock under the dowel, remove the piece from the lathe, and trim off the remainder with a sharp chisel.

—Robert Shea, Santa Maria, Calif.


3/4" plywood
Spacer dowel attached to bowl with hotmelt glue.
Foam carpet pad glued to plywood.
Concentric rings marked on foam pad.
Mark at 1" intervals
MARKING CONCENTRIC CIRCLES
Felt-tip marker

Continued on page 28

One Stop Wood Shop

- Plywood & Veneer made to order (no min.)
- 30 species
- Custom Cutting
- Competitive Pricing
- We bundle & ship to U.S. & Canada
- Over 65 years of personal service

For catalog & quote: (617) 666-1340

Boulter Plywood Corp.
24-WD Broadway, Somerville, MA 02145
Where the finest cabinetmakers select & blend domestic & exotic hardwood in plywood, veneer & lumber.

WOOD

Circle No. 512

Make Your Workshop PAY OFF BIG!

Craftsmen everywhere are using the low-cost Woodmaster to **bring in welcome extra cash** and to **save** on all their lumber needs. You can, too!

With the big 18-inch Woodmaster, the larger 25-inch model or the standard 12-inch planer, you can quickly convert low-cost, rough lumber into valuable finished stock. You can turn out perfect picture frame moldings, crown, bed and base moldings, tongue & groove, door and window trim. . .all popular patterns. . .any custom design.

You can do custom work for friends, neighbors, lumberyards, picture framers, home remodelers, hobby shops and businesses.

Because it takes just seconds to convert a $2 rough board into $10 worth of finished trim, you can see why so many Woodmaster owners enjoy substantial extra incomes!

Variable Speed Makes The Difference!

Just a twist of the dial gives you perfect control for planing, sanding or sawing...from 0 to 1,000 cuts per inch. Creates mirror-smooth molding with no sanding required!

Here's what Woodmaster owner L. C. Griffin of Nashville writes: *"The shop test article in **Wood Magazine** that said they loved your Variable Feed Rate is what sold me. They were right."*

Call or write today for **FREE Facts** on how you can try this **American-Made** tool in your own shop for one full month. Easy terms.

Woodmaster's Quick-Change Molding Head lets you create custom moldings from any stock. Choose from over 250 standard trim and picture frame patterns...or design your own!

Power-fed sanding speeds production and improves the quality of your work. No more waves or cross-grain scratches. Separate sanding head installs in just minutes.

New ripsaw attachment lets you gang-rip with power feed in a fraction of the time it takes for multiple hand-fed passes on an ordinary table saw.

FREE FACTS

☐ **YES!** please rush me your **FREE** Information Kit plus details on your **30-DAY FREE TRIAL!**
WOODMASTER TOOLS, INC., DEPT. PW24
1431 N. TOPPING KANSAS CITY, M 64120

Name _____

Address _____

City _____ State _____ Zip _____

CALL TODAY FOR *FREE* FACTS!
1-800-821-6651
extension PW24
In Canada call
1-800-661-1915
www.woodmastertools.com

TIPS FROM YOUR SHOP (AND OURS)

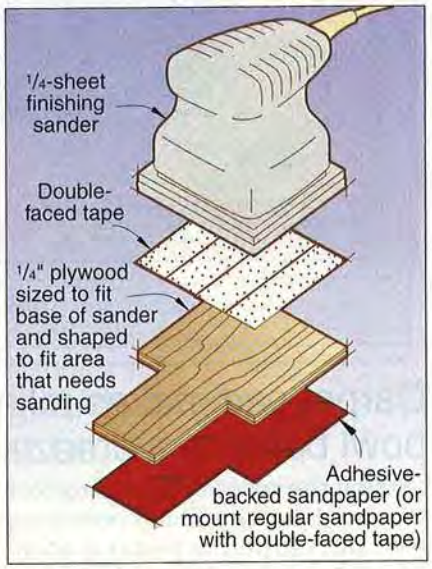
Continued from page 27

For tight spots add an extender to sander

When you come across a small spot your ¼-sheet finish sander can't reach, try this trick. Cut a piece of ¼" plywood in the shape of the base of your sander, and include in this shape a short extension that will fit into the area you can't reach.

Attach this auxiliary base to the pad on your palm sander with double-faced tape. Then, cut out a piece of adhesive-backed sandpaper in the shape of your auxiliary base, and secure it to your modified sander. During use, apply light pressure to avoid dislodging the auxiliary base.

—Karl Faust, Gilbertsville, Pa.


¼-sheet finishing sander
Double-faced tape
¼" plywood sized to fit base of sander and shaped to fit area that needs sanding
Adhesive-backed sandpaper (or mount regular sandpaper with double-faced tape)

A FEW MORE TIPS FROM OUR WOODWORKING PROS

- Looking for a safe, simple way to scrollsaw tiny parts? If so, turn to *page 74*.
- In the same article, learn how stacking the parts before scrollsawing can help you achieve a perfect edge joint between irregularly shaped pieces.
- See how we positioned guide boards to rout a rabbeted opening for a router-table insert on *page 18*. Apply this technique whenever you need to rout a precisely sized opening.

JESADA TOOLS

Collect your instant rebate *now!*
$15 rebate on any $150 purchase
$30 rebate on any $250 purchase
$50 rebate on any $350 purchase
Plus: Free shipping on orders of $200 or more!

There's more to Jesada than fine router bits!

You've seen the rave reviews of Jesada Tools' router bits, now take a look at what editors of the leading woodworking magazines say about our blades. They've tested our blades and dado set against the best on the market and they're convinced. Now you can take advantage of our great prices and convince yourself.

AMERICAN WOODWORKER

Here's what the editors of American Woodworker said when they gave their "Editor's Choice" Award to our 8" Dado Set:

★★★★★ *Excellent in oak veneer plywood cross grain.*
★★★★★ *Excellent in Melamine-faced particleboard*
★★★★★ *Excellent in solid oak cross grain*
★★★★★ *Excellent in solid pine cross grain.*

WOOD

". . .I was surprised by the 110-500 Maxi-Combo Blade. Not only is it the quietest blade I've used, but it gave me excellent crosscuts and rip-cuts in any material. . ."
"If you don't like to change blades, or can only afford one blade, this one outperforms any combination blade I've seen." Dave Henderson, WOOD MAGAZINE

Fine WoodWorking

"Intended for cutting double-faced laminated stock, (the) Ultra-Cut circular sawblade also is great for cutting cabinet-grade plywood. . . Chipping is virtually eliminated on both faces"
"The blade was noticeably quieter than my other blades . . ."
"In my miter saw, the Ultra-Cut produced superbly finished cuts in solid stock"
Dennis Preston, FINE WOODWORKING.

Joint-Master™ Anti-kickback Dado Set. It's the editor's choice!

The Joint Master™ carbide tipped dado features outside blades with 24 teeth, six 4-wing chippers, anti-kickback design and a 5/8" arbor. This package also includes a free Precision Dado Shim Set for those in-between cuts.

Dado Set Specifications:

Diam.	No. of teeth (blades)	No. of wings (Chippers)	Arbor	Cutting width
8"	24	4	5/8"	1/4" to 29/32"

Chipper dimensions:
Includes four 1/8", one 1/16" & one 3/32" Ply-Groove™ Chipper

108-240S 8" Anti-kickback Dado Set
List: $268.40 SALE: ~~$179.00~~
After Instant Rebate: $164.00

Maxi-Combo™ and Ultra-Cut™. Get the finest cuts you've ever seen!

The Maxi-Combo™ features our unique Chamfered Raker Teeth that virtually eliminate chipping in plywood and veneer. The Ultra-Cut™ delivers chip-free cuts in two-sided laminates. That performance is the result of the 40º top bevel on the teeth, which slice the edges of the kerf before removing the bulk of the material.

Specifications: (both blades 10" diameter with 5/8" arbor)

Item #	No. of Teeth	Kerf Width	Hook Angle	List Price	Sale
110-500 Maxi-Combo	50	.125"	12º	$78.40	$66.60
110-800 Ultra Cut	80	.125"	5º	$100.90	$85.80
110-233 Maxi-Combo & Ultra Cut Set				$179.30	$119.00

The Cabinetmaker's *Ultimate* Blade Package:

Includes: Joint Master 8" Dado Set, 10"x80 Ultra-Cut™ & 10"x50 Maxi-Combo™ Blades

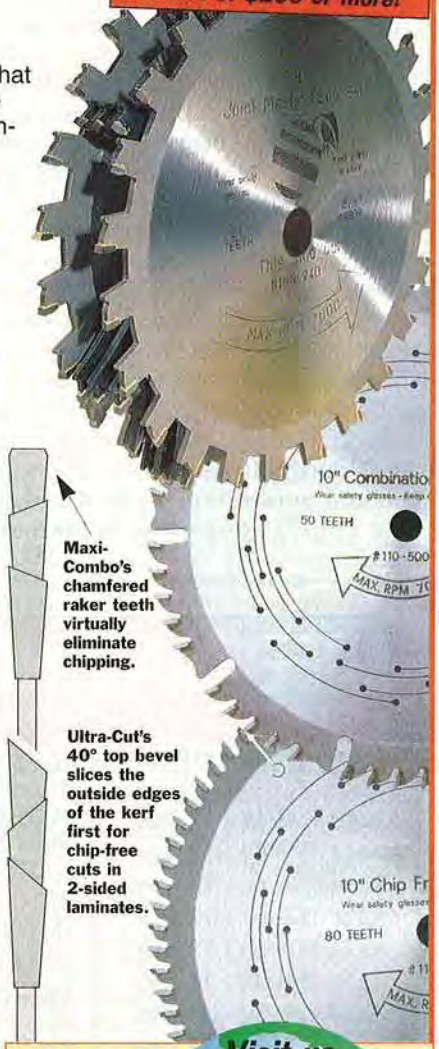
110-333
List: $447.70 SALE: ~~$284.40~~ *Best Buy!*
After Instant Rebate: $254.40

Does your saw seem a little underpowered? Our Thin-Kerf blades are the answer!

Our Thin-Kerf blades feature the same careful design and engineering as their standard-kerf counterparts, but with a thinner plate and tooth profile. We recommend the use of Blade Stabilizers (sold below) with thin-kerf blades.

Specifications: (both blades are 10" diameter with 5/8" arbor)

Item #	No. of Teeth	Kerf Width	Hook Angle	List Price	Sale
210-240 Thin-Kerf Ripping	24	.097"	20º	$69.00	$58.65
210-500 Maxi-Combo Lite	50	.097"	12º	$79.00	$64.90
210-222 Both Thin-Kerf Blades				$148.00	$99.90
SBS-005 5" diam. blade stabilizers (set of 2)				$25.20	$19.90



Maxi-Combo's chamfered raker teeth virtually eliminate chipping.

Ultra-Cut's 40° top bevel slices the outside edges of the kerf first for chip-free cuts in 2-sided laminates.

Visit us on the Web!
http://jesada.com
Over 60 pages of products, instructions, tips & a factory tour!
E-Mail: jesada@packet.net

Call for our Free Catalog

To order, call toll-free 24-hours:
1-800-531-5559
Toll Free FAX: 1-800-870-7702

Free shipping on orders over $200.00
($5.00 shipping & handling for orders under $200.00)

Dealer inquiries welcome!
Export orders: (813) 891-6160 FAX: (813) 891-6259

JESADA TOOLS,
310 Mears Boulevard, Oldsmar, FL 34677

In Canada, call:
ToolTrend Ltd. 1-800-387-7005

WOOD ANECDOTE

Print this article

Port Orford Cedar

The ship-shape wood that went underground

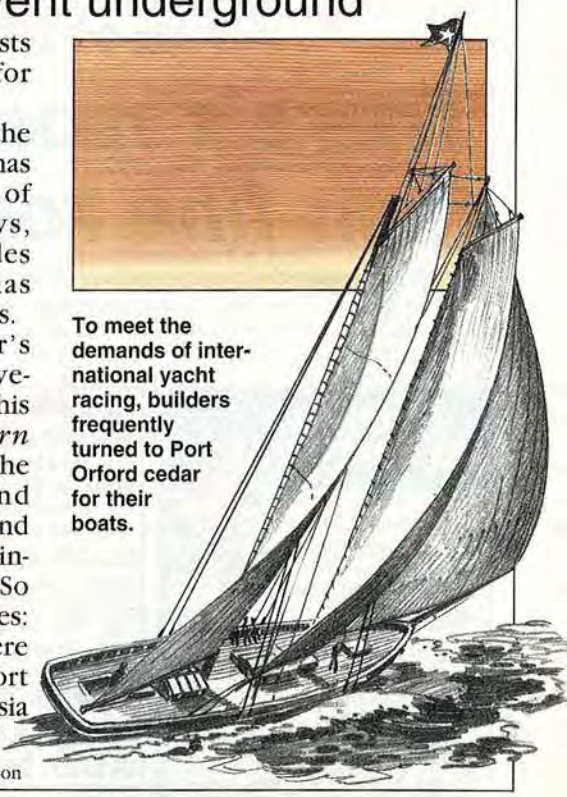
Sir Thomas Lipton, a wealthy British tea merchant turned yachtsman, had a fondness for Port Orford cedar (*Chamaecyparis lawsonia*). For the 30 years following the turn of the century, his racing sailboats, which challenged five times for the America's Cup, were built from it. Although Sir Thomas never captured the cup, he made Port Orford cedar a mainstay among boatbuilders (and his tea a household word).

Known also as Lawson's cypress, Port Orford cedar grows only in a 30-mile wide band from Coos Bay, Oregon, to Eureka, California. From pioneer times, the tree was harvested for its durable wood.

Uses for the stock ranged from venetian-blind slats to mine timbers and railroad ties. It also saw limited application as plywood in the construction of light aircraft. Because Port Orford cedar resists acid, it became prime stock for storage-battery separators.

In addition to supplying all of the above needs, Port Orford cedar has long been the favorite wood of archers. Not for their bows, though, but for arrows. Besides straight grain, the wood has strength combined with lightness.

Perhaps Port Orford cedar's strangest destiny was the graveyard. Donald Culross Peattie, in his *A Natural History of Western Trees*, cites a great demand for the wood as caskets in China and Japan. Its lightness, durability, and satiny, finished texture, plus gingerlike odor, made it perfect. So much was used that Peattie writes: "Sometimes one wonders if there is not almost as much of it [Port Orford cedar] underground in Asia as there is above ground here."



To meet the demands of international yacht racing, builders frequently turned to Port Orford cedar for their boats.

Illustration: Jim Stevenson

FREE SANDING BELTS

BUY A DOZEN GET A DOZEN **FREE**

FULL MONEY BACK GUARANTEE!!

1x30 17.95/doz + **12 free**	**FULL LINE OF 9x11 SHEETS**
1x42 18.50/doz + **12 free**	**A/O or GARNET Cab. Paper**
3x18 18.95/doz + **12 free**	80-D **$25.00/c**
3x21 19.95/doz + **12 free**	100-C to 150-C **23.00/c**
3x24 21.25/doz + **12 free**	180-C & 220-C **21.00/c**
4x21 24.95/doz + **12 free**	**Silicon Carbide Non-loading**
4x24 25.95/doz + **12 free**	80-B **30.50/c**
4x36 35.95/doz + **12 free**	100-B to 150-B **26.50/c**
6x48 40.95/½ doz + **6 free**	180-B to 400-B **21.50/c**
6x89 66.95/½ doz + **6 free**	*S/C Wet/Dry and Cloth Sheets - **Call for Pricing***
Grits available: 36X to 320X	

All cloth belts Aluminum Oxide Resin Bond w/bi-directional butt splice

ALSO AVAILABLE: Stroke Sanding Belts; Belt Cleaning Sticks; Inflatable Drums and Sleeves; **Cloth/Paper Discs (PSA/Hook & Loop)** Wide Cloth and Paper Belts; Drum Sanding Rolls and MUCH MUCH MORE!

Call For Price Quotes • Orders • Free Catalog

Please add $5.00 S & H / PA Residents add 6% Sales Tax

Money Orders ▪ Checks

INDUSTRIAL ABRASIVES CO.
642 N. 8th St. Dept. W
P.O. Box 14955
Reading, PA 19612

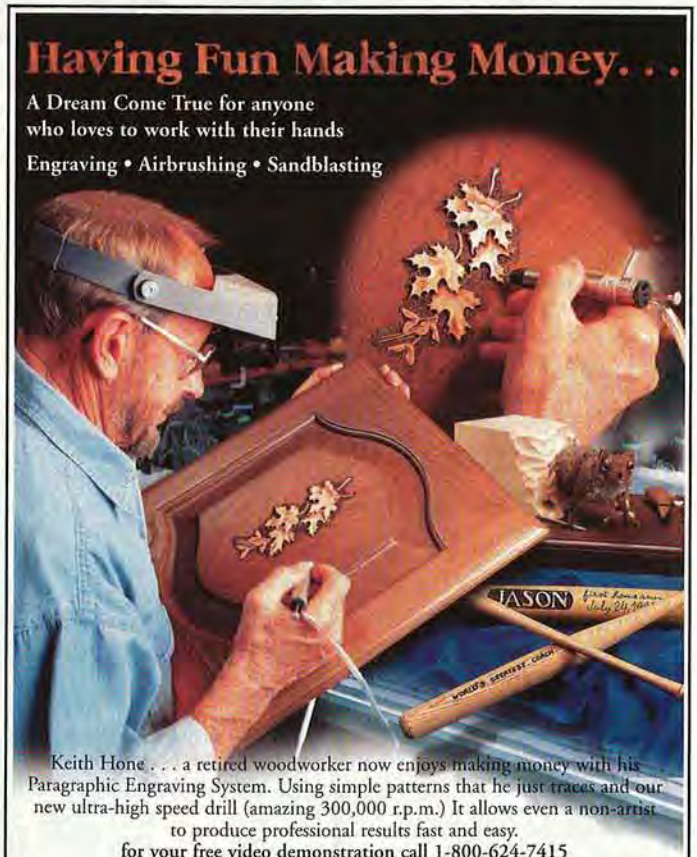
1-800-428-2222
Mon.-Fri. 8am-4:30pm EST
Fax:1-610-378-4868
Anytime

Circle No. 1238, 1248

Having Fun Making Money. . .

A Dream Come True for anyone who loves to work with their hands

Engraving • Airbrushing • Sandblasting



Keith Hone . . . a retired woodworker now enjoys making money with his Paragraphic Engraving System. Using simple patterns that he just traces and our new ultra-high speed drill (amazing 300,000 r.p.m.) It allows even a non-artist to produce professional results fast and easy.

for your free video demonstration call 1-800-624-7415
(refundable deposit required)

Paragraphics

1455 W. Center Orem, Ut 84057

Circle No. 2160

Best Selection, Service, Price!

Hours: M-F 7:00-9:00 CST
Saturday 8:00-5:00 CST
Sunday 12:00-5:00 CST

SAME DAY SHIPPING — FREE FREIGHT!

Serving You For 49 Years!

HONDA Power Equipment

EG2500XK1A 2500 Watt Generator
$799

EG3500XK1A 3500 w gen **1049**
EG5000XK1A 5000 w gen **1399**
EB6500SX 6500 w generator **2479**
EX1000A 1000 wt generator **599**
EM3500SXK1A 3500elec strt **1629**
EM5000SXK1A 5000elec strt **1999**
ES6500K1A 6500 elec strt **2679**

For optimum safety & performance we recommend you read the owner's manual before operating your Honda Power Equipment. Connection of generators to house power requires transfer device to avoid possible injury to power company personnel. Consult a qualified electrician.

DELTA

36-800 3 HP White Unisaw w/50" Biesemeyer
$1599*

36-820 3hp unisw w/52"uni **1499***
36-820L unisaw left tilt 3hp **1499***
36-821L unisaw left tilt 3hp **1499***
36-830 3hp unisaw 30"unif **1399***
36-8213hp uniswv/50" Bies **1499***
36-8313hp unisw w/30"Bies **1399***

34-445Z 10" Cont. Saw w/30" Unifence
$799*

36-460 10" cont saw 28"Bies **729***
36-470 10" cont saw 40"Bies **779***
36-480 10" cont saw 52"Bies **799***
34-444 10" cont. saw **569***

28-280Z 14" 1 HP Bandsaw
$799*
Includes mobile base, fence and cool blocks

28-275 14"3/4hp op st bnds **549***
17-90016-1/2" floor drill prss **399**
23-710 sharpening center **169**
43-379 3 hp hd 2 spd shapr **1349**
36-220 10" cmpnd mitre saw **209**

22-675Y 15" Planer
$1149*
Includes Stand & Extensions

37-350A 8" jointer w/stand **1599***
37-190 6" jointer w/stand **449**
31-280 sandng centr w/stand **749***
40-650 **New** 18"vs scroll saw **429***

22-560 12-1/2" Portable Planer
$399

22-540 12" port planr&knives **329**
31-780 osc spindle sandr **194**
36-250 10" sliding comp. **499**
36-235 12" cmpnd miter saw **309**
36-210 10" cmpd mtr saw **219**
11-990 12" bench drill press **189**
46-700 12" vs wood lathe **469**
43-505 router/shaper **299**
11-090radial drill press w/std **309**
14-650 mortising machine **249**
37-070 6" vs bench jointer **269**

*Price after mail in rebate

BIESEMEYER by DELTA

78-900 50" Commercial w/12" Left
$329

78-907 30" commercial fence **299**
78-934 52" homeshop fence **279**
78-931 40" homeshop fence **259**
78-930 28" homeshop fence **249**

POWERMATIC

1660760 66 Saw 3 HP w/50" Accu-fence
$1999
$200 Savings Bond

1791223 64 Artisn w/Accu-fnc **749**
1791208 osc. spndle sander **299**
1791209 **New** 15" planer **1329**
17910516" jointer with stand **549**
1791215 14" 1hp bandsaw **649**
1791070 1200 cfm dust col. **399**
1791071 1900 cfm dust col. **679**
1610050 8"" long bed jointer **1749**
1270100 3hp wood shaper **2099**

ACCIDENTAL LEATHER

5080 Pro Framer Tool Belt
$139

8080 oxy light pro framer **129**

FUJI

HVLP High Volume Low Pressure 3-Stage Sprayer
$599

CALCULATED INDUSTRIES INC.

4045 Construction Master IV Calculator
$69
NEW!

44045 bench top Const Master **79**

Milwaukee

6527-21 Variable Speed Super Sawzall
$174

5377-61/2"kylss hmmr drill kt **199**
5371-6 1/2" hammer drill kt **194**
5397-6 3/8" hammer drill kit **144**
0234-61/2"vsr 0-850 magnm **134**
0236-6 1/2" drill w/case **149**

6496-6 10" Slide Compound Saw
$579
Includes Tool Stand

6497-6 10" comp saw w/acc **639**
6368 7-1/4" saw w/ct bl, cs,fn **139**
0380-13/8" keyless angle drill **179**
0375-13/8" close quarter drill **149**
6767-15amp hd scrwshtr set **139**
5460 7" vs 0-1750 polisher **179**

makita

LS1011 10" Compound Mitre Saw
$419
Includes Carbide Blade

LS1013 10" dual slide saw **549**
6233DWAE 14.4v drill kit **194**
5007NBK 7-1/4" saw w/case **119**
2708W 8-1/4" tbl saw ct blade **289**
2012 12" portable planer **529**
3612C 3hp plunge router **269**
LS121112" cmpnd miter saw **749**
6311DWHE 12v drill kit, 2 bt **179**
9820-2 blade sharpener **229**
3901 **New** plate joiner **209**

Emglo

AM78-HC4V 1-1/2 HP Vertical Twin Tank
$309

AM79-HC4V 1-1/2 hp v ank **329**

HITACHI

C8FB2 8-1/2" Compound Mitre Saw
$449

C10FS 10"slde compound **689***
P12RA 12" planer/6" jointer **999**
C10FC 10" cmpnd mitre saw **199**
C10RA 10" table saw w/stand **319**
C7BD 7-1/4" circ. saw w/brk **139**
DN10DYK vs 9.6v R.A. drill **159**
M12V 3-1/4 hp vs pl. router **214***
CB75F resaw bandsaw **2399**
NR83A full head stick nailer **379**
NR83AAclipped head stick nlr **339**
NV45AB coil roofing nailer **379**
NT65AA angled finish nailer **329***
EC12 2hp air compressor **289**

*Price after mail in rebate

JDS COMPANY

AT2000 Air Filtration System
$259

8-12 air filtration system **489**
10-16 air filtration system **689**
18-34accu miter gauge w/bar **149**

STANLEY BOSTITCH

N60FN-2 Kit 1-1/4" - 2-1/2" Finish Nailer
$299

N80S-1 16d stick nailer **339**
N80C-1 **New** coil nailer **339**
RN45B-1 **New** roofing nailer **369**
MIIIFS floor stapler **539**
S32SX 1/2-1-3/8 stapler kit **149**

Wap

60113 Turbo Vacuum
$479

776RDF-Dturbo drywaller vac **579**

TORMEK

2004T Wet Sharpening System
$389

freud

FT-2000E 3.25 HP VS Router
$179*

JS102 plate jner cs &adj fnc **124**
TR215 8-1/2" slide saw **269**

*Price after mail-in rebate

PORTER-CABLE The Woodworker's Choice

9444 P Profile Sander Kit
$99

9444VS vs profile kit **119**
333 5" Quicksand dstls sander **65**
332 5" Quicksand PSA sander **59**
334 5" dustless PSA sander **65**
97355 5" vs sander w/case **145**
97366 6" vs sander w/case **149**

DA250A 1"-2-1/2" Finish Nailer Kit
$249
NEW!

FN250A16g 2-1/2"fnsh nail kt **189**
BN200 18g 2" finish nail kit **149**
BN12518g 1-1/4"finish nail kt **99**
NS10018g 1/4"crown stplr kt **99**
NS150 18ga 1-1/2"finish stplr **169**
FC350 2 - 3-1/2" clip hd nailer **289**
FR350 2 - 3-1/2" full hd nailer **289**
RN175 coil roof nailer **299**
CF2400 2 hp oil free comp **329**

352VS 3x21 VS Belt Sander
$175

7810 tool triggered vacuum **269**
556 plate jointer w/cs & fnc **139**
360 3x24 sander with bag **214**
362 4x24 sander with bag **229**
360VS 3x24 vs belt sander **229**
362VS 4x24 vs belt sander **239**
9862 12v 3/8" dr kit w/2 bat **169**
9872 14.4v drill kit w/2 bat. **199**
743K 7-1/4"15 amp saw w/cs **129**
843 LH 7-1/4" saw w/brk **144**

693PK 1-1/2 HP Plunge Router Kit
$199

90690 1-1/2hp router, case **159**
97310 laminate trimmer kit **189**
7539 3-1/4hp 5 spd plng rtr **289**
691 1-1/2 hp D handle router **169**
697 router table w/router **234**
7518 3-1/4 hp 5 speed router **289**
7538 3-1/4 hp plunge router **259**
7403 paint remover **179**

9737 Quick Change Tiger Saw Kit
$159

7499 ***New*** cut-out tool **69**
97549 top handle vs jigsaw **144**
7800 drywall sander **339**
693 1-1/2 hp plunge router **184**
6931 plunge router base **84**

PRICE GUARANTEE

Our Prices Won't Be Beat*

Panasonic

EY6100FQKW 12 V 3/8" Drill Kit w/2 Batteries
$184

EY6230 15.6v 1/2" drill kit **219**

JET EQUIPMENT & TOOLS

JTAS-10X 10" Jet Saw 3 HP w/50" XACTA Fence & Motor Cover
$1299*
NEW!
Includes table & legs

JPM-13 13" planr/moulder **769***
JWTS-10JF10" saw w/Jet fnc **569***
JWBS-14CS 14"1hp wd bds **549***
JJ-6CSX 6" long bed jointer **469***
JWP-15HO 15" 3hp w plnr **1129***
DC-650 1hp 650cpm cllectr **214***
DC-1200 2hp1200cfm cllectr **379***

*Price after mail in rebate

David White

LP6-20 20X Sight Level Package
$219

LP6-20XL sight level pkg. **279**
ML200 visible beam laser **899**
ALTP6-90018 auto lvl trnst pk **509**
LT8-300 26 x transit **499**
LT8300P 26 x opt. transit **579**
ALP6-18HD18x auto package **399**

BOSCH

1587AVSK VS Top Handle Jig Saw w/Case
$154

1584VSKbarrel jigsaw w/case **164**
1634VSK vs recip saw kit **184**
3107DVSK 5" rndm sndr kit **114**
3107DVS dstls rdm orb sndr kt **99**
3315K 12v T-handle w/2 bat **159**
3615K 14.4v 3/8" vsr 2/bat **174**

11224VSR 7/8" Bulldog SDS Rotary Hammer
$219

11304 Brute breaker hammr **1249**
1194VSRK1/2" hmr drill w/cs **159**
1276DVS 4x24 vs belt sander **219**
1275DVS 3x24vs sndr w/bg **214**
1274DVS 3x21 vs sndr w/bag **169**
1604 1-3/4 hp router **144**

1613EVS 2 HP, VS, Microfine Plunge Router
$189

3725DVS 5" H&L vs sander **139**
3727DVS 6" H&L vs sander **144**
B3915 10" slide compnd saw **549**
1609KX laminate trimmer kit **229**
B4050 in-line jigsaw **99**
3296K 3-1/4" planer kit **179**

DEWALT

DW708 12"Sliding Dual Compound Miter Saw
$679

DW744 10"portable table saw **549**
DW733 12-1/2" port plnr **449**
DW788 20" vs scroll saw **489**
DW938K 18V recip saw kit **269**
DW937K 14.4v recip saw kit **259**

DW995KS-2 18 Volt Contractors Combo Kit
$389

DW936K 18 v crdls saw kit **249**
DW935K 14.4 cdls saw kit **239**
DW621 2hp vs plng router **219**
DW625 3hp vs plunge router **279**
DW673Klaminate trimmer kit **189**

DW321K VS Jigsaw With Case
$164

DW705 12" cmpnd mitr saw **349**
DW364 7-1/4" saw w/brake **159**
DW675K 3-1/8"planer w/case **164**

DW682K Plate Jointer Kit
$199

DW421K 5"h&l rand sndr w/cs **74**
DW423K5"vs rndm sander w/cs **94**
DW443 6" RA H&L rdm sndr **144**
DW431 3"x21"vs belt sander **189**

DW995K 18 Volt 1/2" VSR Drill Kit
$229
KIT BOX INCLUDED

DW991K-22 14.4v3/8"dv/dr k **219**
DW991KS-214.4v drill/saw kt **349**
DW991KC-214.4 v dr/recip kit **379**
DW995KC-2 18v dr/recip kit **399**
DW997KC-2 18v hm dr/recp k **419**

PERFORMAX PRODUCTS, INC.

16-32 Plus 16" - 32" Bench Drum Sander
$899
Includes Infeed & Outeed Tables

Jem

MSXE-636-2 VS Triangular Oscillating Sander w/Case & Paper
$179

9-55-13 turbo II vacuum **259**

SENCO

SFN40K 1-1/2 - 2-1/2 Finish Nailer
$349

SN325+ 6d - 12d nailer **369**
SFN-1 Plus 1"-2" finish nailer **319**
SN60 full hd stick nailer **419**
SLP-20 5/8"-1-5/8" brd nal kt **249**
SLS20 **New** finish staplr w/cs **269**
SKS 1/4" crown finish stapler **279**

To Order or for Technical Support Call TOLL-FREE

1-800-358-3096

Box 14040 • Grand Forks, ND • 58208-4040

FedEx MOST PORTABLE TOOLS SHIPPED FED-EX $10.00 MORE

FAX US YOUR ORDER! 1-800-343-4205

*Any comparable National ad in this issue. We reserve the right to verify competitors price and stock. Limited to stock on hand.

MasterCard VISA DISCOVER NOVUS

TOOL CRIB OF THE NORTH

Wood Winter '97

Visit Our Web Site at http://www.toolcribofthenorth.com

•• FULL LINE DISTRIBUTOR •• FREE FREIGHT IN 48 CONTIGUOUS USA •• FACTORY AUTHORIZED SERVICE •• ERRORS AND PRICES SUBJECT TO CHANGE ••

Create Classic Raised Panel Doors

with your 1/4" or 1/2" Router, or your 1/2" or 3/4" Shaper.

Our professional production quality router bits make it quick and easy to produce attractive raised panel doors. Our reversible combination bit makes a matching rail and stile frame. The panel raising bit with ball bearing guide makes a perfect raised panel every time!

Carbide Tipped!

Includes instructions and Professional Tips!

RAISED PANEL DOOR SETS			
SET #	BIT STYLE	LRG. DIA.	SET PRICE
#1301	1/4" Shank Router	* 2"	$69.95
#1302	1/2" Shank Router	* 3-1/2"	$79.95
#1303	1/2" & 3/4" Shaper	4-5/8"	$99.95

*Ball bearing included

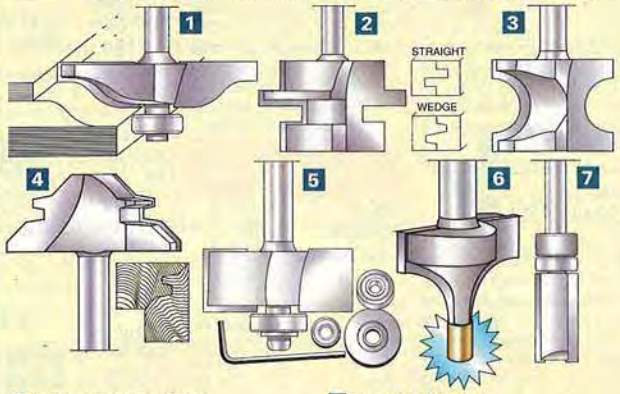
*Raised Panel Router Bit

*Reversible Combination Rail & Stile Bit
Works with stock from 11/16" to 7/8".

SAVE! BUY AN MLCS SET

1/4" Shank Carbide Tipped Router Bits

Professional Production Quality Guaranteed!



1 OGEE RAISED PANEL
#1423 2" Large Diameter **$29.95**

2 TONGUE AND GROOVE
#1333 Straight **$29.00**
#1335 Wedge **$29.00**

3 BULL NOSE
#1330 1/2" Dia. of Circle **$16.00**
#1331 3/4" Dia. of Circle **$21.00**

4 LOCK MITRE BIT
#1433
2" Dia., Stock thickness: 1/2"-3/4" ..**$37.50**

5 RABBETING KIT
Ball bearing guides allow 4 depth of cuts: 3/8", 7/16", 5/16", 1/4". Set: 1/4" shank rabbeting bit, 4 bearings (3/8", 1/2", 5/8", 3/4") & hex key.
#1425 1-1/4" Large Diameter....**$25.00**

6 BRASS PILOTED
Rout into tight spaces and sharp corners. These bits have Brass Pilots, measuring only 5/32" in dia., instead of the usual 1/2" ball bearing.
#1428 1/8" R Round Over **$16.00**
#1429 1/4" R Round Over **$17.00**
#1430 3/8" R Round Over **$19.00**

7 PATTERN/FLUSH TRIM
#1340
1/2" Dia., 1" Cutting length. **$15.00**
#1341
3/4" Dia., 1" Cutting length **$17.00**

QUANTITY DISCOUNT! ***When ordering 3 or more router bits deduct $1.00 from each!***

25 piece Brad Point Drill Bit Set

Drill accurate holes in wood, plastics & composites.

METAL CASE & BIT HOLDER INCLUDED!

Bit sizes from 1/8" to 1/2" by 1/64" increments. Bits are deep fluted to clear chips quickly.

ITEM #1413
REG. $34.95 .....**SALE $18.95**

Biscuit Joining Set

5/32" Slot Cutter-1/4" Shank and 250 #20 Biscuits

FAST AND EASY

"Biscuit Joining with your Router", Instructional sheet included.

ITEM #1385
REG. $35.00 .....**SALE $29.95**

MERLE

The ***ADJUSTABLE CORNER CLAMP®***

• Adjustable, uniform clamping pressure on all corners • Great for wide cabinet frames (for center or edges) • Forces a frame into perfect square • Almost NO capacity limitation, ships with 23 ft. reel of steel banding • Aluminum & Steel construction

ITEM #1420
REG. $39.95.....**SALE $24.95**

1/4" Shank Carbide Tipped

Round Over/Beading Bit Set

Set includes: 4 Round Over Bits with 1/2" OD bearing: (1/8", 1/4", 3/8", 1/2"), plus 3/8"OD bearing & allen wrench.

ITEM #1434
$72 Individually..**SALE $39.95**

1/4" Shank Carbide Tipped

Cove Bit Set

This production quality set includes 4 Cove Bits: (1/8" R, 1/4" R, 3/8" R, 1/2" R).

ITEM #1435
$65 Individually..**SALE $37.95**

Solid Brass Router Inlay Set

Makes perfect fitting recesses and inlays!

Easy to use inlay kit follows a 1/4" thick pattern template of almost any shape to produce the recess. Fits Porter Cable*, Black & Decker* or any router with an adaptor for Porter Cable bushings. Kit includes 1/8" solid carbide downcut spiral bit, brass bushing, brass template guide, brass retainer nut & instructions.

ITEM #1426 REG. $35.95 .....**SALE $21.95**

Expert Technical Help Before & After Sale

FREE CATALOG

MLCS

PROFESSIONAL WOODWORKING PRODUCTS

FREE SHIPPING *IN CONTIGUOUS USA FOR ALL ITEMS

©1997

ORDER TOLL FREE 1-800-533-9298
24 HOURS A DAY
Order by Fax (215) 938-5070

VISA AMERICAN EXPRESS MasterCard DISCOVER

Order By Credit Card or Send Check To:
MLCS, Ltd.,
P.O. Box 4053DJ
Rydal, PA 19046

Circle No. 1251, 1350, 2250

BEECH

A tree with European ties and an American heritage

Long ago, English bodgers crafted the legs of Windsor chairs from beech trees they felled in the forest. The long-wearing wood also became peasant footwear in the shape of shoes and clogs. And in the iron smelters of Germany, France, and England, beech was the fuel.

The vast beech forests that once covered large parts of Indiana, Kentucky, Ohio, and central Michigan were thus familiar to early European immigrants and travelers. But westward-moving pioneers in the new land discovered that the American beech grew in the choicest soils. So with ax and saw, they felled the trees to plant crops. In doing so, they destroyed the nut crop of the then numberless passenger pigeon. This move, combined with mass hunting, spelled their extinction.

Today, although the blanketing beech forests are gone, the tree remains plentiful throughout its range. Its hard, pliable, strong, and pretty wood, however, primarily furnishes stock for paper. That's because kiln-drying beech in commercial quantities has its pitfalls. Yet, some beech does become woodenware and furniture parts, as well as barrels for aging beer.

Wood identification

While beech species grow in every hemisphere, the one you'll find in North America is American Beech (*Fagus grandifolia*). "Blue beech," which shares the same range, proves to be hornbeam.

In lower elevations, beech often grows in pure stands, with trees to 120' in height and 4' in diameter.

Beech has an unmistakable bark of shiny, silver-grey that fits its trunk like smooth skin. It seems to beg knife-point initialing, as was done by Daniel Boone on a Tennessee tree: "D. Boone, Cilled A Bar On Tree In Year 1760."

In early spring, yellow-green blooms appear with the newly formed leaves on beech's branches. By fall, small triangular nuts covered by prickly burs occur. These sweet, edible nuts provide wildlife with forage.

The wood of beech resembles yellow birch, but with a tint of red in the darker brown heartwood. The straight-grained, evenly textured stock frequently has an attractive ray fleck. It is hard, strong, and heavy—at 45 lbs. per cubic foot, it matches red oak.

Natural range

Uses in woodworking

Because beech steam-bends as readily as ash, it works well for chair legs and backs. In fact, this under-used wood could be made into any type of interior furniture, cabinets, flooring, and trim. As drawers, beech actually becomes slicker as it rubs against other wood members.

Woodturners use beech for items such as goblets with delicate stems. It's also ideal for food-use vessels like cutting boards and spoons because it imparts no odor or taste, and takes abuse. Carvers, though, find it difficult to tackle.

Availability

Beech may not fill a bin at your hardwood retailer, especially if you live far from its range. However, the large suppliers that carry this hardwood normally offer it at a price below that of hard maple. And, you may find it in long boards up to 12" wide, but usually not as plywood.

Continued

PERFORMANCE PROFILE

beech

(Fagus grandifolia)

Beech sapwood

Beech heartwood

Slow-grown beech from the northern part of its range will give you the most woodworking satisfaction because of its tighter grain. But avoid stock that's only air-dried or you'll invest as much work getting rid of warp, twist, checking, and discoloration as you will making parts. Otherwise, work the wood using the following tips.

Machining methods

Beech reacts to most machining much like maple or yellow birch, with some exceptions:

- Beech's hardness sometimes means chipping or tearout when planing or jointing with revolving cutterheads. If this happens, try reversing the board and taking a shallower cut.
- Deciding on grain direction when feeding the jointer can be a problem because of the evenness of beech's grain. If it gets confusing, simply set the table height for a 1/16" cut and proceed. If there's no tearout, gradually increase the cut to 1/8".
- Nearly as dense as hard maple, beech requires ripping with a rip-profile blade of 24 teeth or fewer to prevent dust buildup and burning in the kerf. Don't try to feed the wood any faster than the blade wants to cut it, and use your saw's splitter to defeat binding.
- Depend on a fine-toothed crosscut blade to cut beech to length, again to prevent burning.
- When drilling beech, back the bit out frequently to clear the hole. This avoids burning, especially in end grain.
- Ballbearing pilots on your router bits and slow feed will eliminate burning. So will shallow passes across the grain.
- Beech works well with all glues. Detect squeezeout by wiping along the joint with paint thinner.
- Because of beech's hardness, always predrill for fasteners.
- Unlike maple, beech won't blotch when stained, and you can stain it to resemble other woods, particularly cherry.
- You'll find that beech accepts all types of finishes equally well. If you have stock with a distinct ray fleck, enhance it with clear penetrating oil.

Carving comments

- Although generally not a carver's choice for hand tools, beech can be shaped with power carving burs. But don't start with aggressive burs. Use medium, then fine.

Turning tips

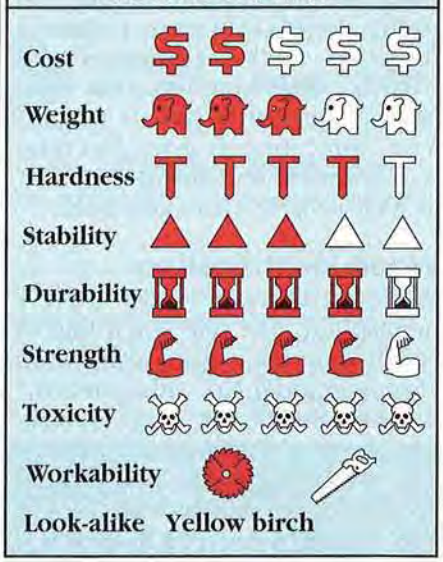
- An excellent turning wood, beech presents few problems other than its hardness, which results in scratches if sanding is done across grain on the lathe. Always sand with the grain while the lathe is turned off.

SHOP-TESTED TECHNIQUES THAT ALWAYS WORK

Any exceptions, and special tips pertaining to this issue's featured wood species, appear elsewhere on this page.

- For stability in use, always work wood with a maximum moisture content of 8 percent, with 6 percent preferrable.
- Feed straight-grained wood into planer knives at a 90° angle. To avoid tearing, feed figured wood or that with twisted grain at a slight angle of 15°, and take shallow cuts of about 1/32".
- For clean cuts, rip with a rip-profile blade that has 24-32 teeth. For crosscutting, use a blade with about 40 teeth.
- Avoid drilling with twist drills. In wood, they tend to wander off the mark as well as cause breakout. Use a backing board under the workpiece.
- Drill pilot holes for screws.
- Rout with sharp, preferably carbide-tipped, bits and take shallow passes to avoid burning.
- Carving hardwoods generally means shallow gouge bevels—15° to 20°—and shallow cuts.

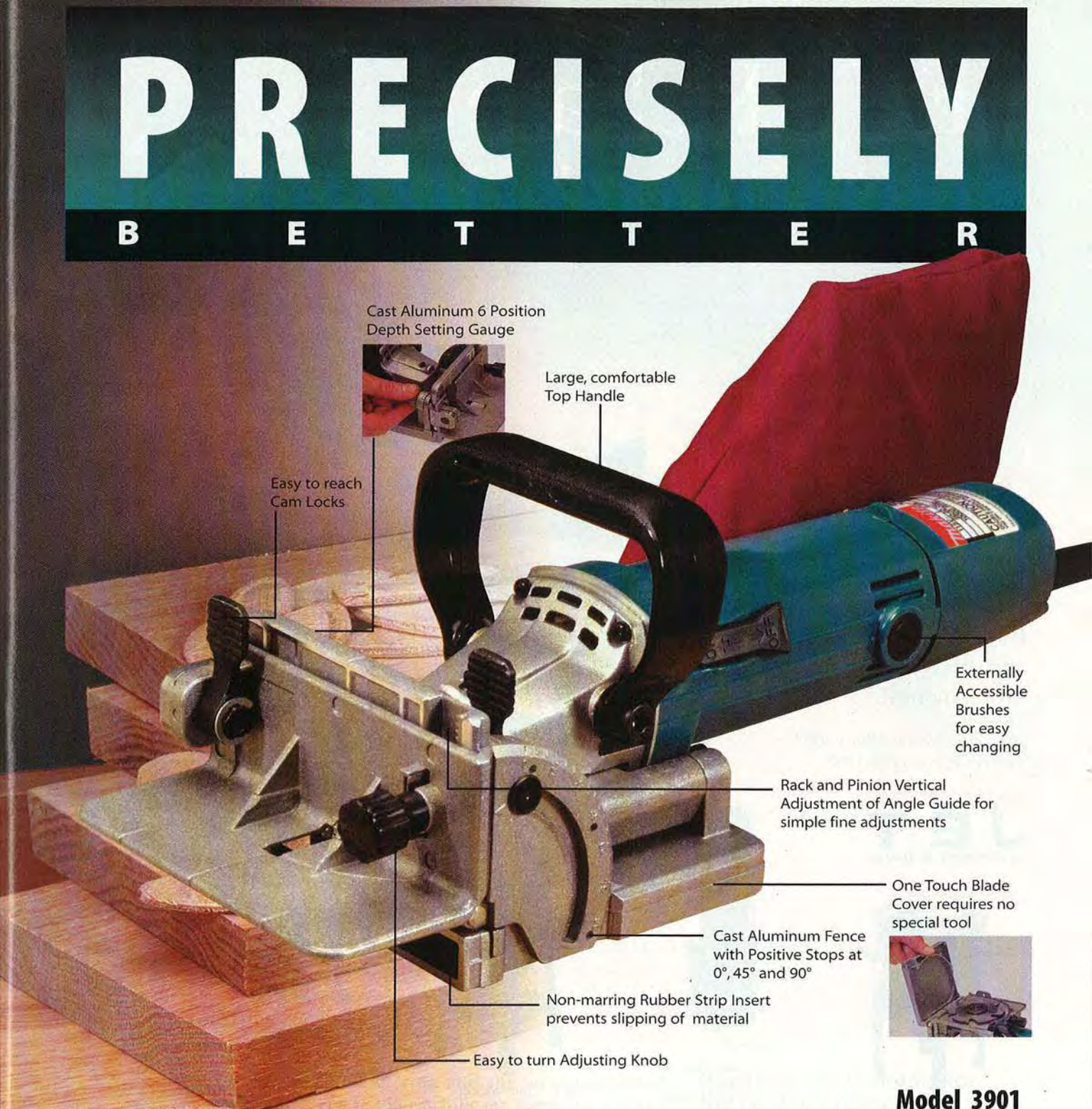
BEECH AT A GLANCE



Compiled with woodworker Todd Friey Illustrations: Steve Schindler

PRECISELY

B E T T E R


Cast Aluminum 6 Position Depth Setting Gauge
Large, comfortable Top Handle
Easy to reach Cam Locks
Externally Accessible Brushes for easy changing
Rack and Pinion Vertical Adjustment of Angle Guide for simple fine adjustments
One Touch Blade Cover requires no special tool
Cast Aluminum Fence with Positive Stops at 0°, 45° and 90°
Non-marring Rubber Strip Insert prevents slipping of material
Easy to turn Adjusting Knob

Model 3901

THE MOST ACCURATE AND EFFICIENT PLATE JOINER AROUND

Makita's Model 3901 offers more of the high quality features you want in a plate joiner.

Like a cast aluminum fence and base that's precision machined for accuracy. Rack and pinion vertical adjustment for exact cutting depths. Spiral cut bevel gears for smooth and efficient transmission of power.

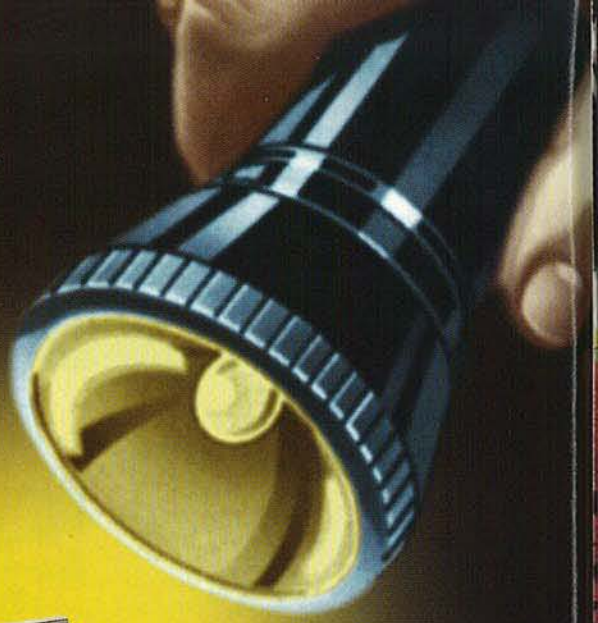
Accurate, Efficient and Powerful. Makita's model 3901 is precisely the tool to get the job done right.

For more information, call 1-800-4-MAKITA

makita

POWER TOOLS FOR THE LONG RUN

JET's Rebate - a bright idea



Save up to $100

Buy any of these JET tools, and shed some light on saving money!

Offer effective October 1, 1997 through February 28, 1998.

JET
EQUIPMENT & TOOLS

The Industry's Best Contractor Saw

JWTS-10
Contractor's Tablesaw
$35 Rebate

JWP-15HO Planer
$100 Rebate

JWBS-14CS
Closed Stand Bandsaw
$30 Rebate

JWBS-14OS
Open Stand Bandsaw
$20 Rebate

JPM-13 Planer/Molder
$30 Rebate

DC-1200 Dust Collector
$20 Rebate

DC-650 Dust Collector
$15 Rebate

JJ-6CSX Jointer
$20 Rebate

JWP-12 Planer
$15 Rebate

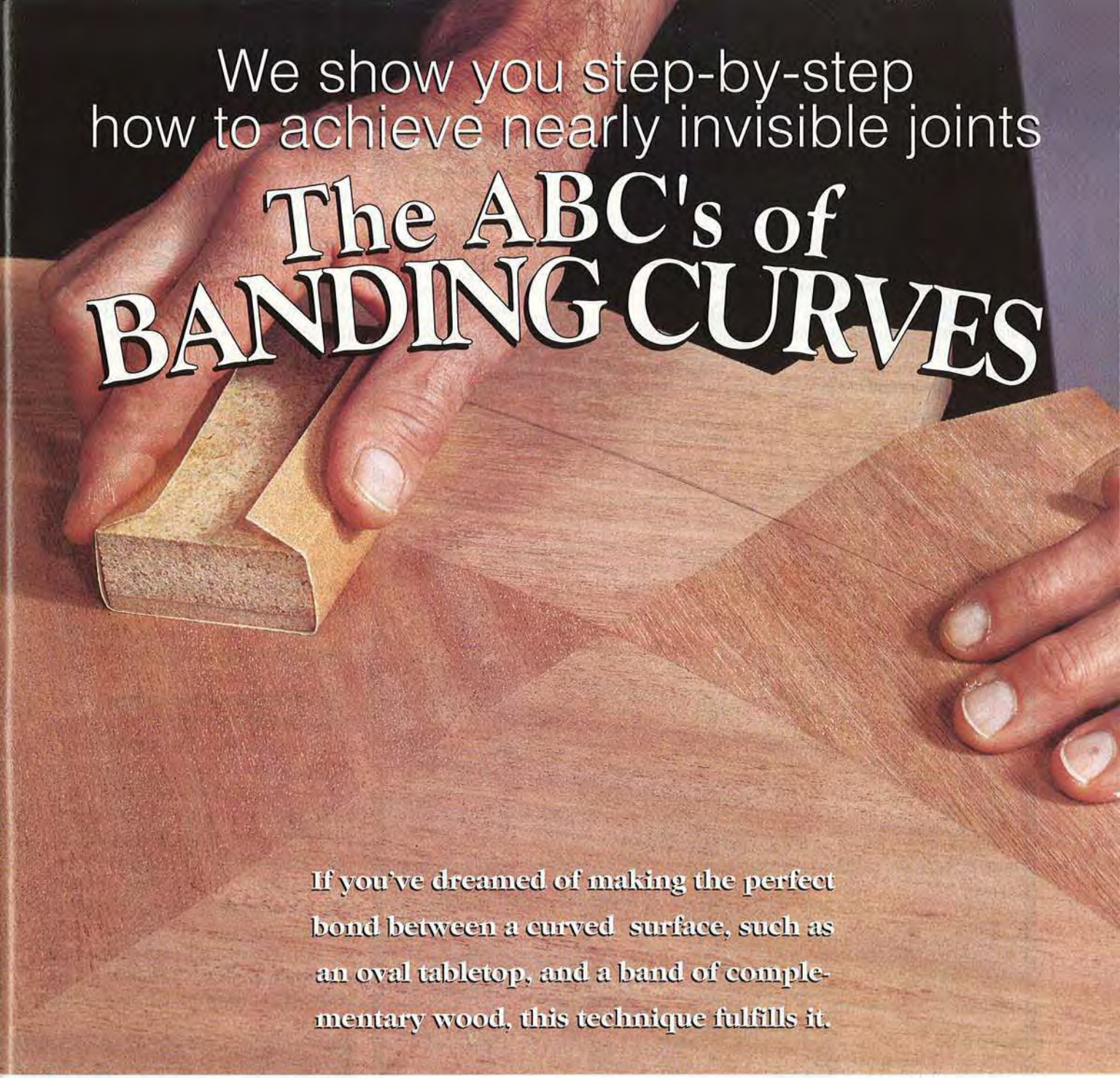
JTAS-10 Left or Right XACTA Saw
$100 Rebate

JDP-17MF Drill Press
$20 Rebate

For the name of your local JET dealer, call 1-800-274-6848 or visit our website at http://www.jettools.com

We show you step-by-step how to achieve nearly invisible joints

The ABC's of BANDING CURVES



If you've dreamed of making the perfect bond between a curved surface, such as an oval tabletop, and a band of complementary wood, this technique fulfills it.

Knowing how to add a band of complementary solid wood to an oval tabletop, or even a special serving tray, raises your woodworking skill a level or two. This is especially true if you can make the band fit with a barely visible joint line, as in our banded tabletop in the photo *above*. Here, we created the perfect joint between the ribbon-mahogany plywood center section and the straight-grained, solid mahogany band. To add this skill to your woodworking repertoire, follow the step-by-step instructions here and on the following pages. We'll use the oval top for the coffee-table base on *page XX* as our working example. Also refer to the Curve-Banding Technique drawings on the following pages as you go through all the steps to a perfect fit.

You'll need a template for the center sections

To build the four quarters of the oval tabletop's center section (we'll call this the *field* from here on), you will need to use the template used in the construction of the base top (A) in the coffee-table article. Follow the instructions on the full-sized pattern to shape it for use as a master template for this banded tabletop.

Continued

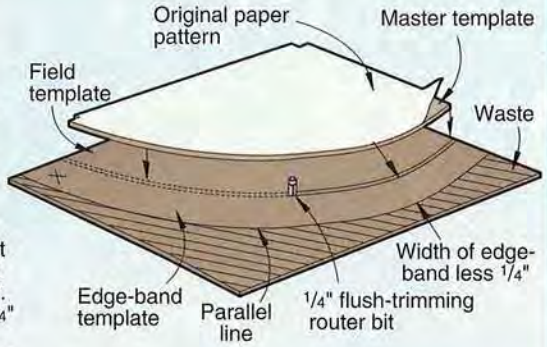
Print this article

Banding Curves

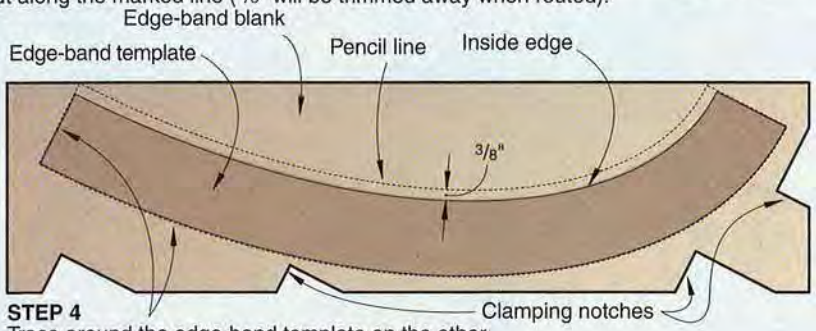
THE CURVE-BANDING TECHNIQUE

STEP 1
Using the master template as a guide, rout the field and edge-band templates to shape. Note that the field template created is exactly the same size as the master template, and the edge-band template is 1/4" less in width than the required finished width of the edge-band.

STEP 2
Mark a line on the edge-band template parallel to the curved cut from Step 1, equal to the finished width of the edge band minus 1/4". See photo A for reference. The 1/4" will be regained in Step 5.
Cut along the marked line to finish shaping the edge-band template.



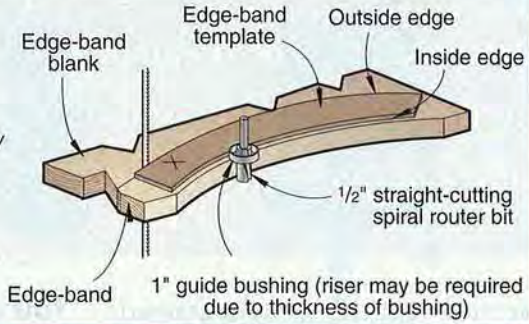
STEP 3
Attach the edge-band template with double-faced tape to the edge-band blank. Mark a parallel line 3/8" from inside edge of edge-band template onto the blank. Using a jigsaw, cut along the marked line (1/8" will be trimmed away when routed).



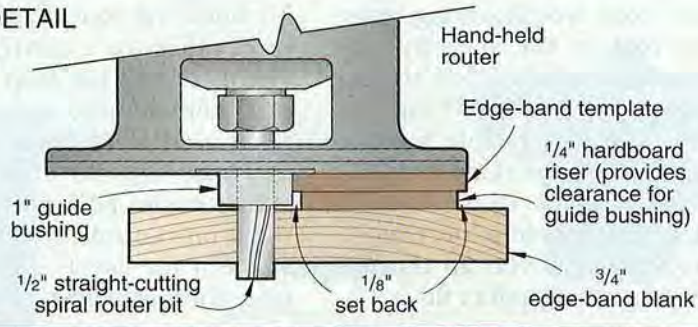
STEP 4
Trace around the edge-band template on the other three sides. Do not cut these lines until after glue-up.

STEP 5
Now we gain back the 1/4" lost in Step 1. Using a router with a 1" guide bushing and a 1/2" straight-cutting spiral bit, rout the inside edge of the edge-band to shape (see the Riser detail *below* and photo B for reference).

STEP 6
Mark outside edge onto blank. Saw along marked line to complete edge-band after glue-up.



RISER DETAIL



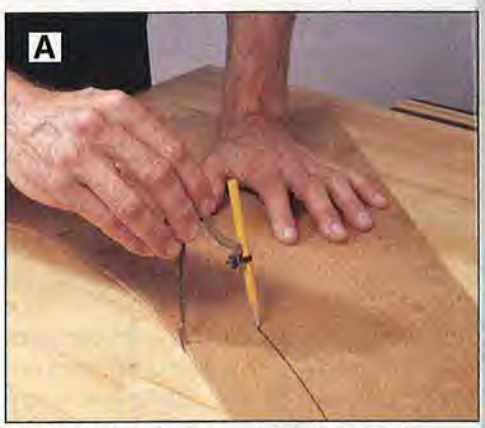
Now, to make a matching pair of templates for the field and edge-band, adhere the master template to another sheet of 1/4" hardboard with double-faced tape. Install a 1/4" flush-trimming bit in your router, and at your router table, cut through the hardboard using the master template as your guide, as shown in Step 1 of the Curve-Banding **Technique drawings *left.***

At this point, you'll have made a one-quarter field template with a true curved edge and *the beginning* of an edge-band template that has a matching curved edge. However, because you removed 1/4" of wood from the edge-band template stock with the flush trimmer, you will need to compensate for this difference when routing the band to shape. Later, we'll tell you how to do this.

Cut the band template and band stock

For our coffee-table top, set a compass at 2". Mark a pencil line on the edge-band template stock that parallels the curve of the field, as in photo A. With a jigsaw, cut the edge-band template from the hardboard sheet by sawing just outside the line. Then, sand to the line.

Use this finished template to lay out the sections of edge-band on your solid stock by making a saw



Mark the band-section template stock with a compass set to 2". Draw the line to parallel the curve of the field.

line with your compass ⅜" from the curve (**see Step 3 in the Curve-Banding Technique drawings, *opposite page***), then pencil along the remaining three sides. Next, cut along the penciled saw line with your jigsaw to remove waste. You'll also want to cut out the clamping notches on the edge-band section blank at this time.

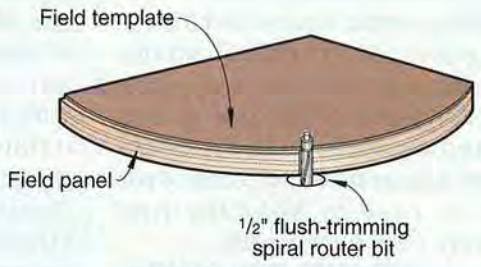
From the remaining ¼" hardboard stock, mark and cut out a edge-band section riser that's ⅛" narrower on both sides of the curve than the band template. Attach this riser to the *underside* of your rough-cut edge-band section blank with double-faced tape. The riser provides clearance for the thickness of the 1" guide bushing that you'll use with a ½" straight bit in your handheld router to trim the rough-cut edge-band section, as shown in the **Riser detail drawing, *opposite bottom***. (We used a carbide-tipped spiral bit to make the cut in one pass. Lowering a bit for multiple passes results in a poor fit.)

Secure the edge-band section template and the template riser to your rough-cut edge-band section blank with double-faced tape. Clamp down the assembly so that the curve of the workpiece clears the edge and the clamps are out of the router's path, as shown in the **photo B**. Trim the edgeband

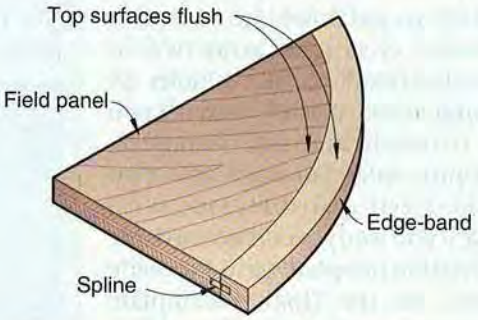
Continued

To match the band-section template, trim away ⅛" from the band-section stock with a handheld router.

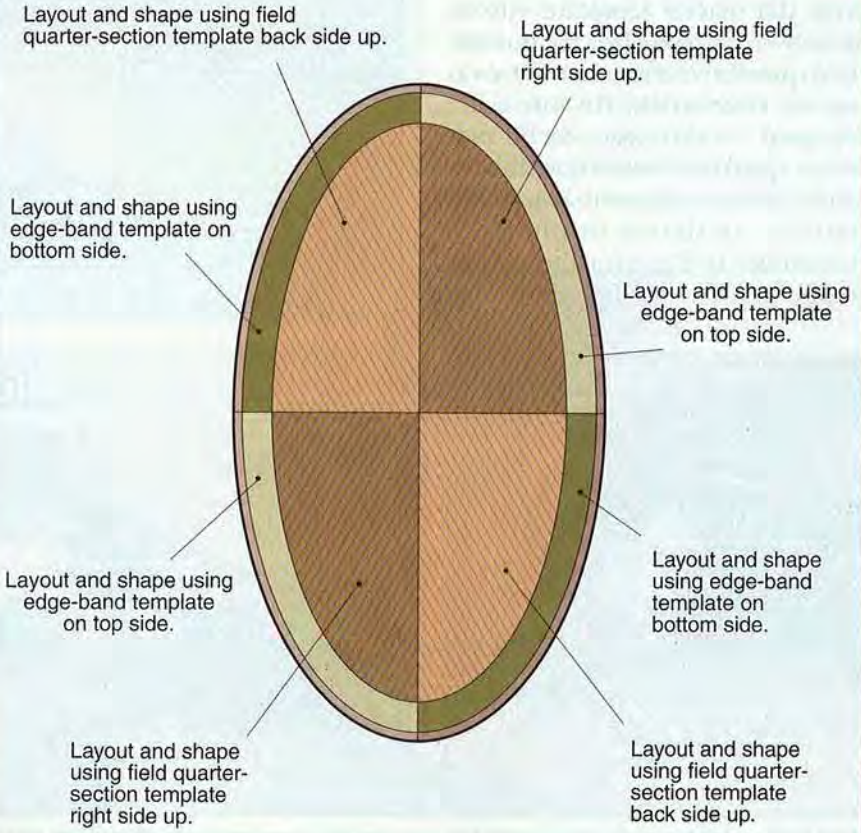
STEP 7
Attach field template with double-faced tape or clamps to field panel previously cut to rough shape. Rout curved edge of field panel as shown in photo D. Field panel will mate perfectly with the inside edge of the edge-band.



STEP 8
Presto! The edges of the edge-band and field panel are a perfect match. We used a continuous spline slot (⅛" slot ½" deep) with short lengths of spline stock (2"-long) to join the pieces and keep the top surfaces flush. See photo E for reference.



TIPS FOR TEMPLATE USE


Layout and shape using field quarter-section template back side up.
Layout and shape using field quarter-section template right side up.
Layout and shape using edge-band template on bottom side.
Layout and shape using edge-band template on top side.
Layout and shape using edge-band template on top side.
Layout and shape using edge-band template on bottom side.
Layout and shape using field quarter-section template right side up.
Layout and shape using field quarter-section template back side up.

section blank along the curve with your handheld router.

Safety note: *To avoid chipout along the curve, hold the router between you and the workpiece, and move it slowly right to left, cutting backward. Because the router wants to "climb" out of the cut, be sure to hold the tool securely with both hands.*

To complete the entire band, you'll now have to repeat the preceding steps three more times. However, you must rout two of the edge-band section blanks by turning them upside down (you can't match identical images). This principle also applies to two of the field quarters, but with these, you only need to reverse the master template (use it upside down). See the Tips for Template Use drawing, *previous page*.

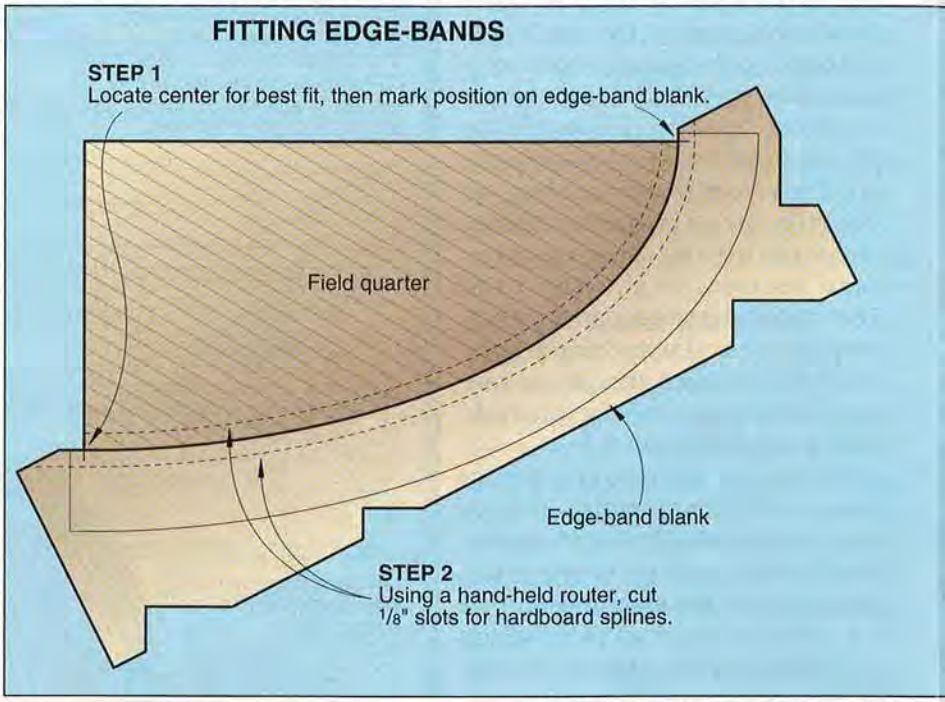
Lay out and build the field-quarter sections

With the master template you've already shaped to size, lay out the field-quarter sections of the oval top on your stock. (In our case, we used ¾" mahogany-faced plywood quartered with the ribbon-stripe figure laid out in a sunburst pattern, as shown in photo C. Remember to flip over the master template for two of the quarters as previously noted. Lay your pencil over at an angle and draw a line for sawing the curve at least ⅛" from the template. Now, cut out each field-quarter section with your jigsaw.

Double-faced tape will adhere the master template to one of the field-quarter sections, or use clamps. With your table-mounted router fitted with a ½" flush-trimming bit, true the curved side to the template edge as shown in photo D, *below*. Now, check the fit between a section of edge-band that you've made and the curve of the field-quarter section. Flush-trim the curved edges of the remaining field-quarter sections.

Here's how to join the bands to the field quarters

On your worktable, lay out the four field-quarter sections and their corresponding edge-band section blanks. Fit a edge-band section blank to each quarter. With a pencil, mark their exact



With the master template, lay out the top on the mahogany plywood. Here, we laid out the top in a sunburst pattern.

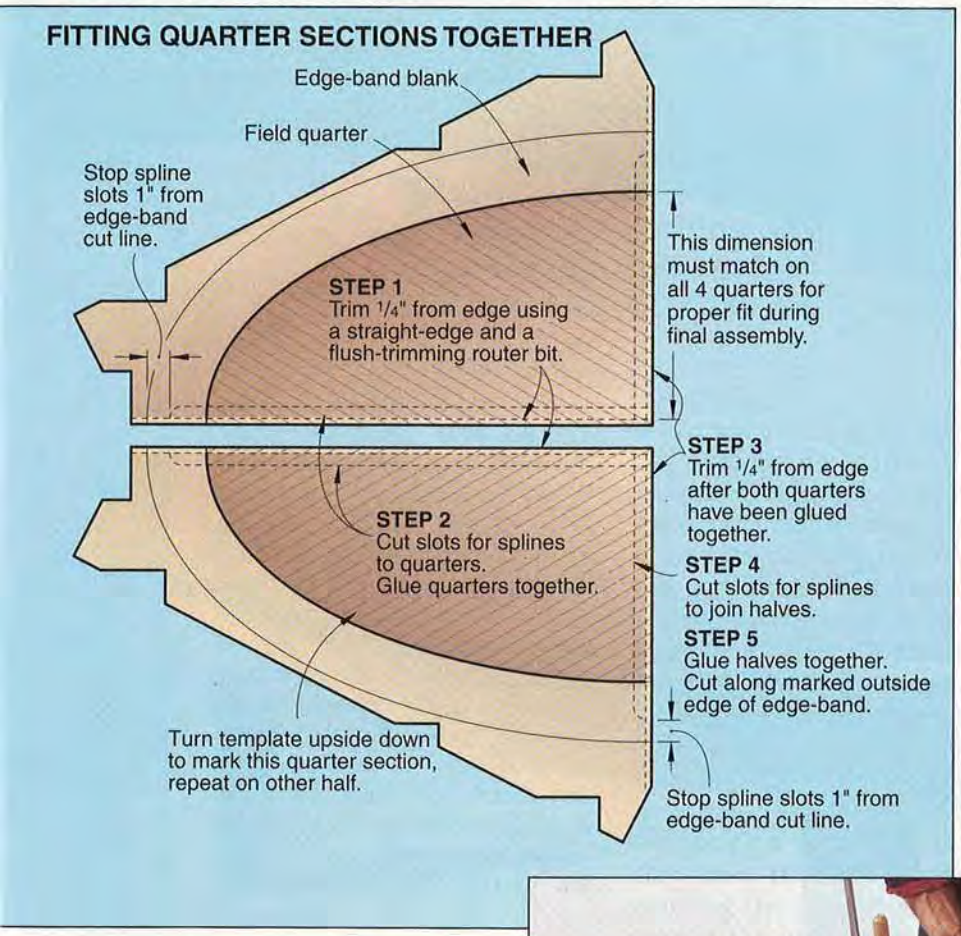
After sawing out the field sections with a jigsaw, true the curved edges with a flush-trimming bit at the router table.

Space and dry-fit single 2"-long splines of ⅛" tempered hardboard into the slots of the field/band joints.

location,as indicated in the Fitting Edge-Bands drawing, *opposite*.

Next, install a ⅛" slot-cutting bit in your handheld router. Then, clamp each field-quarter section to your workbench (make sure they lie top side up) and rout a ½"-deep spline slot on the curved edge. Do the same with the matching curved edges of the edge-band section blanks (clamp them down top side up, too).

Cut as many 2"-long splines as needed from ⅛"-thick tempered hardboard, and dry-fit them into the slots of the band/field joint of each field-quarter section, see photo E. Be sure the joints fully close and the register marks line up. Glue and clamp the edge-bands to each field-quarter section using the clamping notches, as in photo F.


FITTING QUARTER SECTIONS TOGETHER
Edge-band blank
Field quarter
Stop spline slots 1" from edge-band cut line.
STEP 1
Trim 1/4" from edge using a straight-edge and a flush-trimming router bit.
This dimension must match on all 4 quarters for proper fit during final assembly.
STEP 3
Trim 1/4" from edge after both quarters have been glued together.
STEP 2
Cut slots for splines to quarters. Glue quarters together.
STEP 4
Cut slots for splines to join halves.
STEP 5
Glue halves together. Cut along marked outside edge of edge-band.
Turn template upside down to mark this quarter section, repeat on other half.
Stop spline slots 1" from edge-band cut line.

Spline and glue the quarters of the tabletop

After the glue dries, trim each field-quarter section as instructed in *Step 1* of the Fitting Quarter Sections Together drawing, *left*. Then use the slot-cutter to rout ½"-deep spline slots as in *Step 2*. Check splines for fit, then glue and clamp the quarters using a clamping block, as in photo G, to keep halves flat.

When the glue dries, proceed as in *Step 3* and trim ¼" from each half field. Move to *Step 4*, cut ½"-deep spline slots, and dry-fit ⅛×1⅝" splines cut to fit. Now, glue and clamp the halves together until dry, as shown *below*.

Cut away waste outside the cutline, then sand to line. To profile the edge as we did for the coffee table, see drawing on *page 45*.

Notches in the band-section blanks allow a tight glue-up to the field quarters. A glue block keeps the pieces flat.

After joining the field quarters into halves, glue and clamp the halves together. Trim band waste when the glue dries. Profile the edge of the top with a router or leave plain. Then, finish-sand and apply a clear finish.

Written by Peter J. Stephano with James R. Downing Photographs: Hetherington Photography Drawings: Lorna Johnson

Construct this beautiful top and coffee table using the techniques shown in the previous article. Then, use the instructions given here to build the tapered legs, kerfed skirts, and top panel. We think you'll find the results well worth your efforts.

Elegant Oval Coffee Table

If you're sitting there thinking, "I could never build this project," think again. With our simplified construction process and our crystal-clear step-by-step instructions, you can't miss. Go ahead, give it a try.

Note: *To make this project even easier for you to build, we've arranged for a hardwood lumber kit that includes all of the mahogany and plywood needed. We've also added a source for the router bits. See the Buying Guide at the end of the article for additional details.*

The following instructions describe how to build the coffee table base. To build the beautiful matched-grain banded top, refer to the previous article beginning on page 37.

Let's begin with the top panel

1 Cut the full-sized quarter pattern from the *WOOD PATTERNS®* insert in the center of the magazine, and use spray adhesive to adhere it to a piece of ¼" thick material (we used hardboard). Follow the pattern to cut the quarter pattern template to shape.

2 Drill 5⁄32" holes through the template where indicated on the paper pattern.

3 Cut the base top blank (A) to the size listed in the Bill of Materials and as shown on the Cutting Diagram from ¾" plywood. Mark two intersecting centerlines using the dimensions shown in the Cutting Diagram to divide the base top blank into four equal quadrants.

4 Align the centerlines on the template with the intersecting lines on the base top blank, and trace around the curved edge of the template to mark an oval on the base top blank. (When marking the oval perimeter on two of the quadrants, the template will be paper side down.) At this point your marked oval should measure 20½" wide by 38½" long.

5 Using the holes in the template as guides, drill 5⁄32" holes through the base top blank (A). Next, countersink all holes *on both the top and bottom* of the top panel.

6 Carefully cut the oval-shaped base top to shape (we used a bandsaw), cutting just outside the marked line. Then, sand to the line (we used a stationary disc sander) to finish forming the oval base top (A).

Machine the mahogany kerfed skirts next

1 Cut the skirts (B, C) to the sizes listed in the Bill of Materials from ¾" mahogany.

2 Using the Skirt Top View on the next page for reference, cut a 9⁄16" rabbet ½" deep across both ends of each skirt on the inside face. Then, cut a ¾" rabbet ½" deep along the entire length of the top edge of each skirt also on the inside face.

3 Using the Skirt Top and Side Views for reference, cut ⅛" kerfs 5⁄8" deep and 3⁄8" from center-to-center on the inside face. Cutting the kerfs will allow the skirts to bend around the base top (A) later.

Here's how to attach the skirts to the top panel

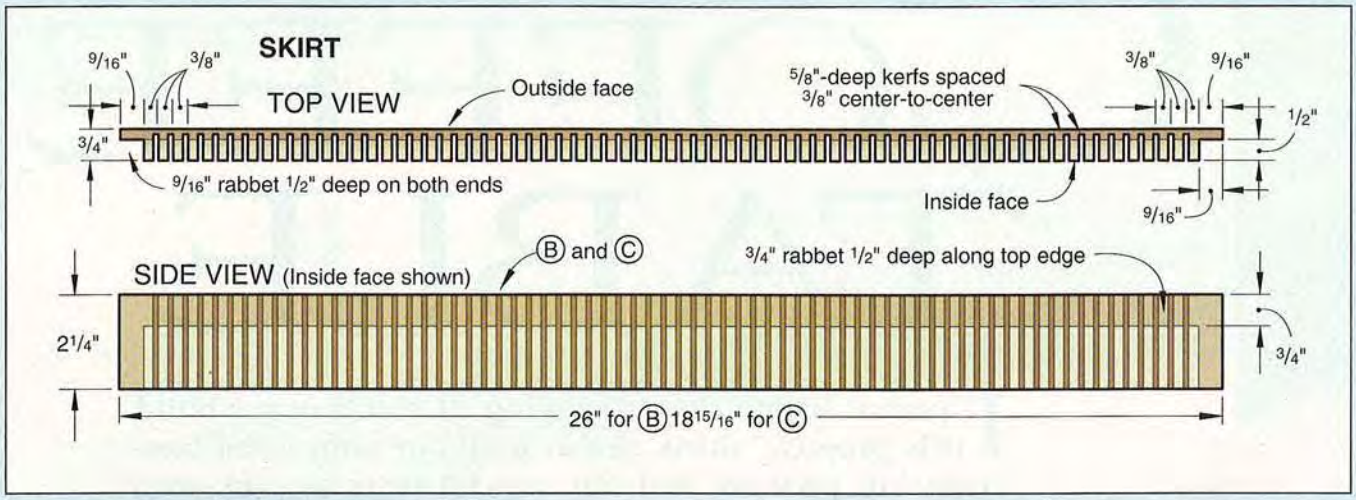
1 Mark a centerline across the top edge of each skirt. You'll use these centerlines to align the skirts with the centerlines previously marked on the top (A). See the Exploded View drawing and Quarter Pattern Template for reference.

2 Spread glue on the mating edges of the top (A) and side skirts (B). Align the centerlines

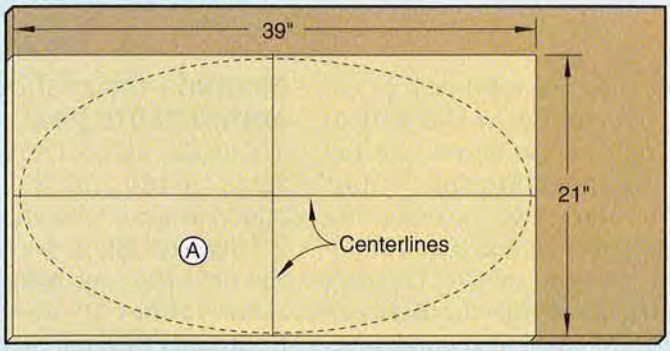
Continued

Print this article

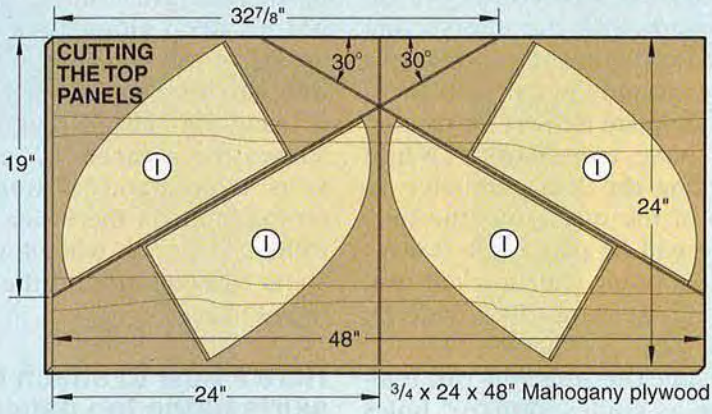
COFFEE TABLE



CUTTING DIAGRAM



3/4 x 24 x 48" Plywood



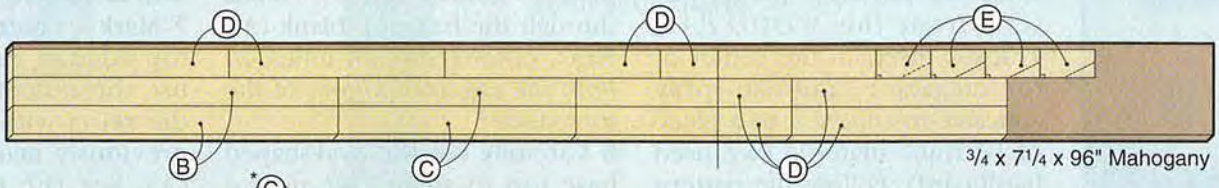
3/4 x 24 x 48" Mahogany plywood

Bill of Materials					
Part	Finished Size			Matl.	Qty.
	T	W	L		
A base top blank	3/4"	21"	39"	P	1
B side skirts	3/4"	2 1/4	26"	M	2
C end skirts	3/4"	2 1/4"	18 15/16"	M	2
D legs	1 1/2"	2 1/4"	17 1/4"	LM	4
E braces	3/4"	2 1/4"	4 3/8"	M	4
F* side skirt bead blanks	5/16"	2 1/2"	13 1/2"	M	4
G* end skirt bead blanks	5/16"	2 1/2"	11"	M	4
H top banding	3/4"	6 3/4"	26"	M	4
I top quadrant blank	3/4"	24"	48"	MP	1

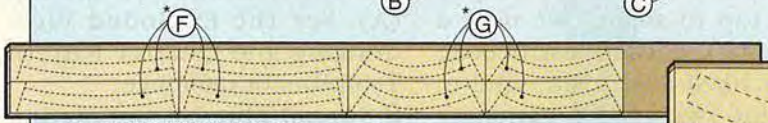
*Cut parts marked with an * oversized. Trim to finished size according to the how-to instructions.

Materials Key: P–Plywood, M–mahogany, LM–laminated mahogany, MP–mahogany plywood.

Supplies: #8x1 1/4" flathead wood screws, #8x1 1/2" flathead wood screws, clear finish.

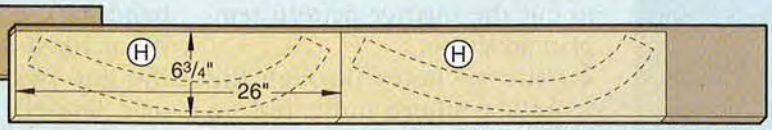


3/4 x 7 1/4 x 96" Mahogany



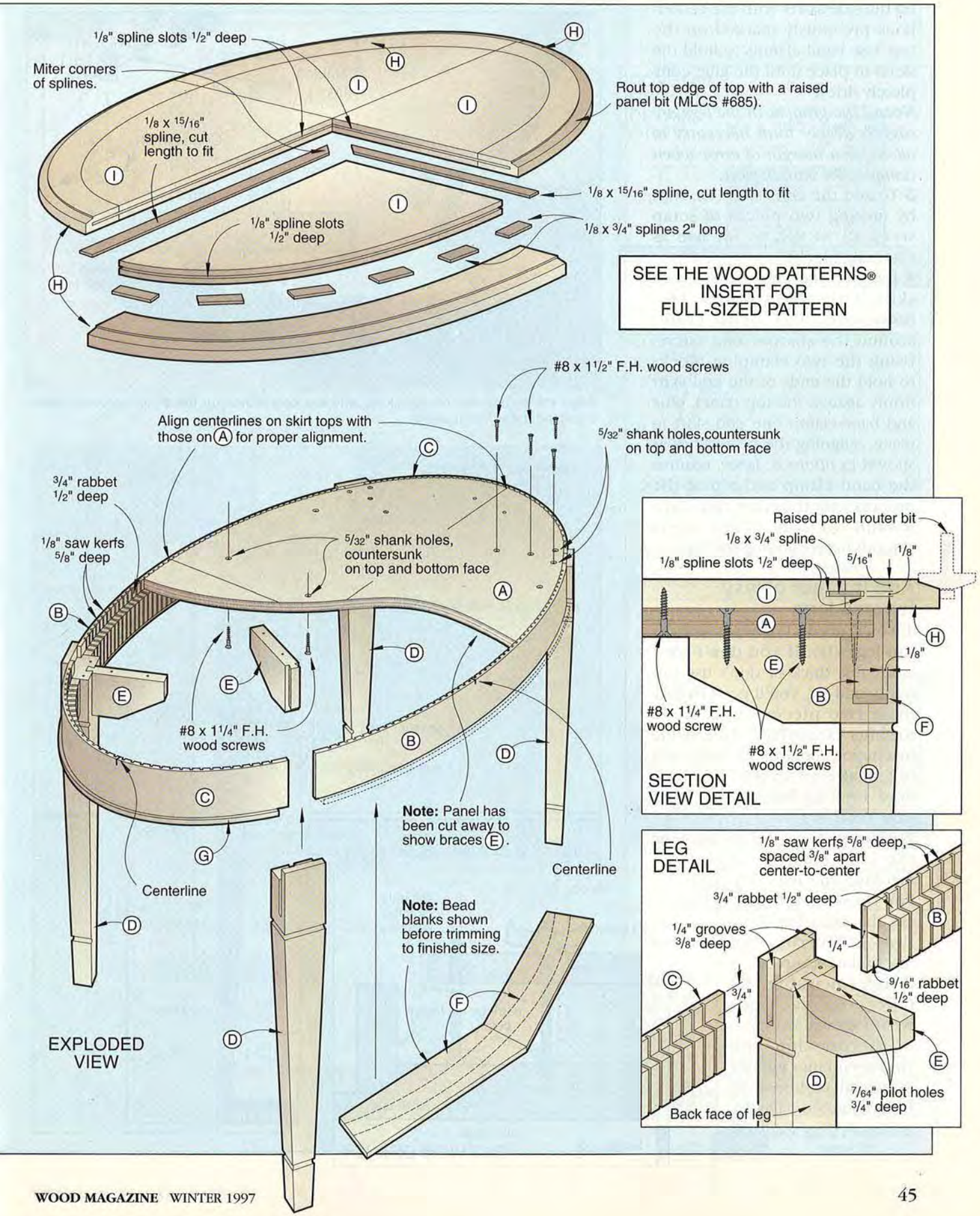
1/2 x 5 1/2 x 60" Mahogany

*Plane or resaw to the thickness listed in the Bill of Materials.



3/4 x 7 1/4 x 60" Mahogany (2 needed)

Text continues on next page


1/8" spline slots 1/2" deep
Miter corners of splines.
1/8 x 15/16" spline, cut length to fit
Rout top edge of top with a raised panel bit (MLCS #685).
1/8 x 15/16" spline, cut length to fit
1/8" spline slots 1/2" deep
1/8 x 3/4" splines 2" long
SEE THE WOOD PATTERNS® INSERT FOR FULL-SIZED PATTERN
#8 x 1 1/2" F.H. wood screws
Align centerlines on skirt tops with those on (A) for proper alignment.
5/32" shank holes,countersunk on top and bottom face
3/4" rabbet 1/2" deep
1/8" saw kerfs 5/8" deep
5/32" shank holes, countersunk on top and bottom face
#8 x 1 1/4" F.H. wood screws
Note: Panel has been cut away to show braces (E).
Centerline
Centerline
Note: Bead blanks shown before trimming to finished size.
EXPLODED VIEW
Raised panel router bit
1/8 x 3/4" spline
1/8" spline slots 1/2" deep
5/16"
1/8"
1/8"
#8 x 1 1/4" F.H. wood screw
#8 x 1 1/2" F.H. wood screws
SECTION VIEW DETAIL
LEG DETAIL
1/8" saw kerfs 5/8" deep, spaced 3/8" apart center-to-center
3/4" rabbet 1/2" deep
1/4" grooves 3/8" deep
1/4"
9/16" rabbet 1/2" deep
3/4"
7/64" pilot holes 3/4" deep
Back face of leg

on the side skirts with the centerlines previously marked on the top. Use band clamps to hold the skirts in place until the glue completely dries.

Note: *The grooves in the legs are slightly deeper than necessary to allow for a margin of error when clamping the skirts in place.*

3 To add the end skirts (C), start by cutting two pieces of scrap stock to ⅜×½×2¼" for use as clamping blocks.

4 Dampen the outer face of one skirt with warm water. This helps the skirt bend easier around the sharper end curve. Using the two clamping blocks to hold the ends of the end skirt firmly against the top panel, glue and band-clamp one end skirt in place, aligning the centerlines as shown in *photo A*. Later, remove the band clamp and repeat the process with the other end skirt.

5 Sand the face of the skirts smooth before adding the legs.

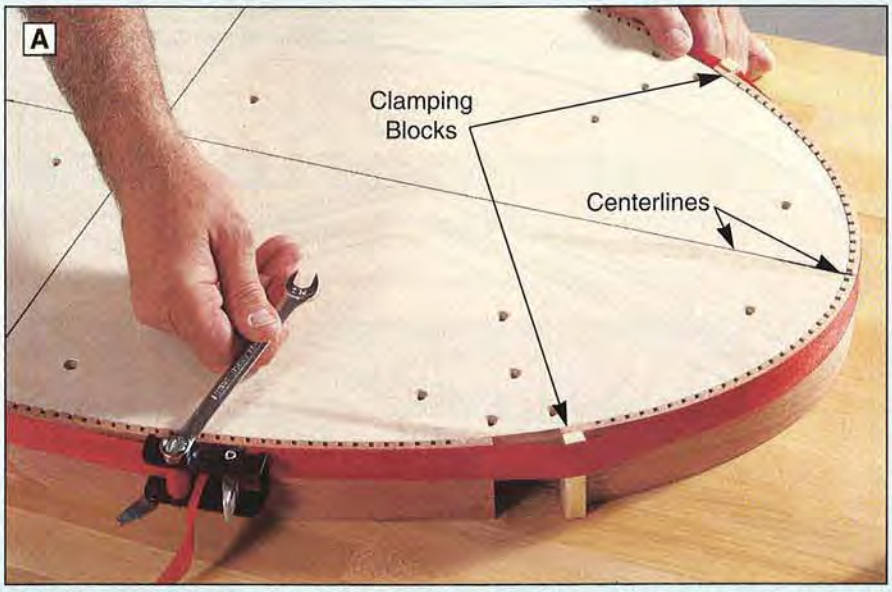
Add the four classy tapered legs

1 You'll need 1½"-thick stock for the legs (D). If you don't have stock this thick or don't use our hardwood kit, you'll need to laminate two pieces of ¾" stock together face-to-face. To test the machining required to form each leg, make an extra leg blank now. Each leg blank should measure 1½×2¼×17¼".

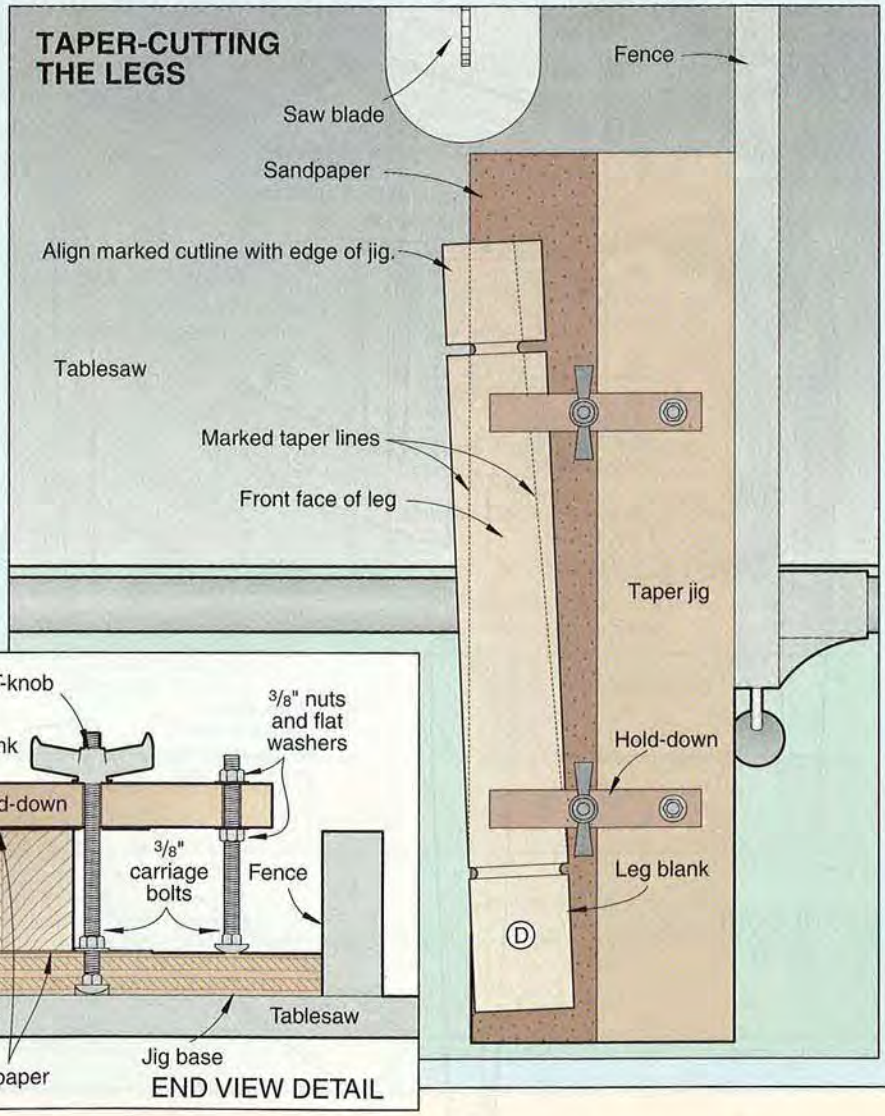
2 Refer to *Steps 1-6* on Forming the Legs drawing to machine the legs (D). For these steps, test-cut the extra leg blank first to verify the machining set-ups.

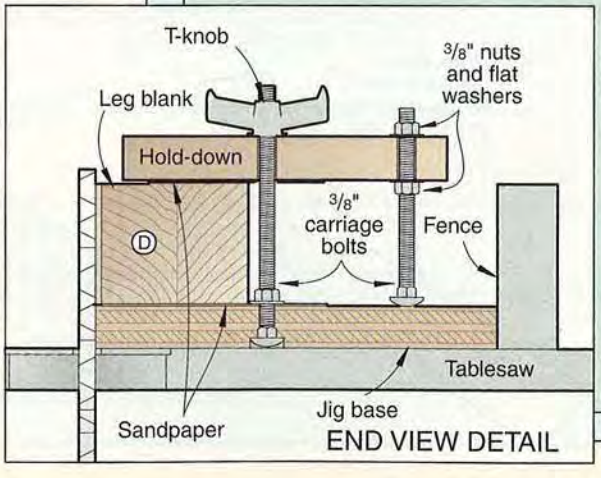
3 After marking the tapers on each leg where shown on *Step 6* of the drawing, use your own taper jig, our universal tablesaw jig from issue 93, page 70,

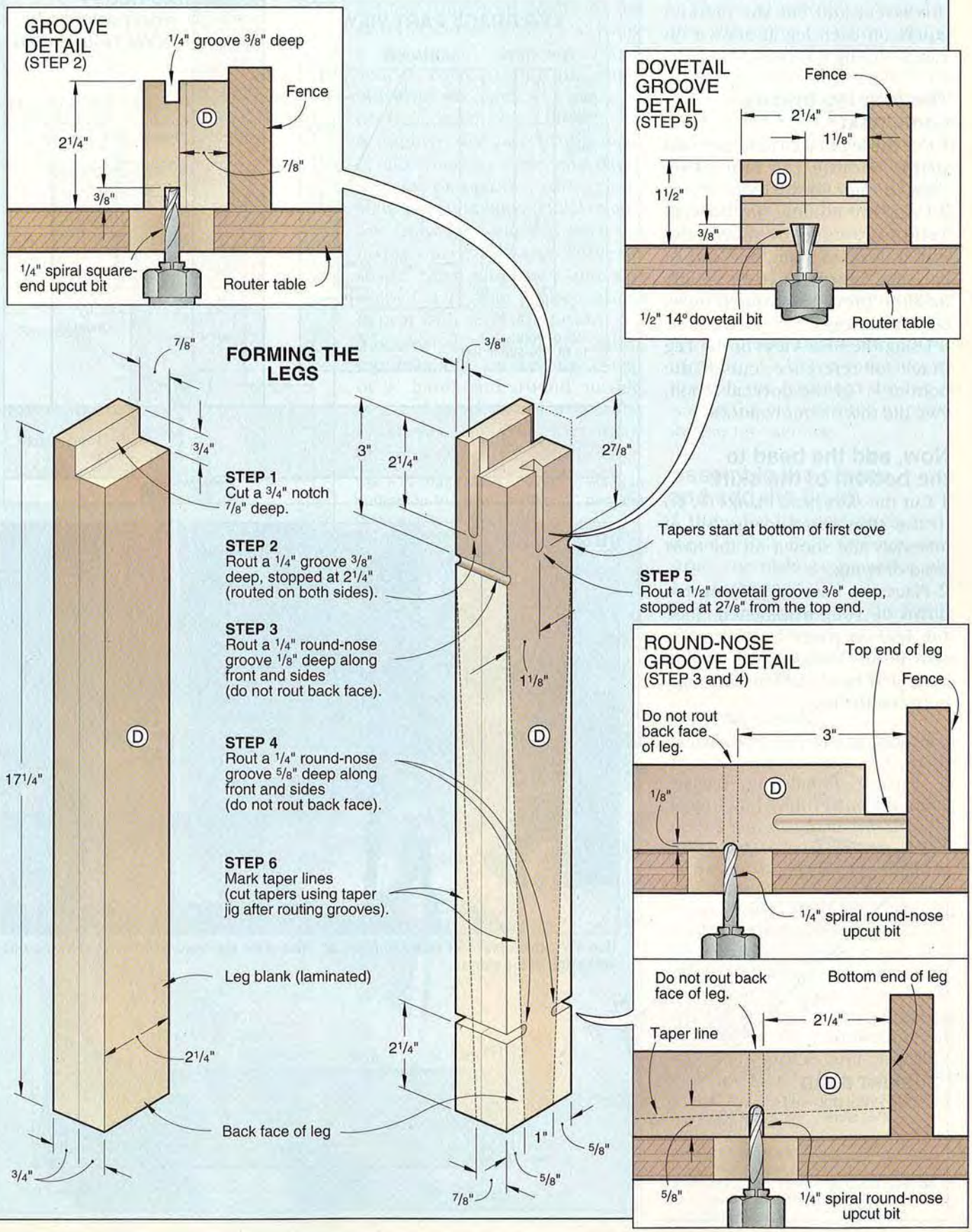
Continued



Align the centerlines on the skirts with the centerlines on the base top when band-clamping the skirts in place.






GROOVE DETAIL (STEP 2)
1/4" groove 3/8" deep
Fence
2 1/4"
7/8"
3/8"
1/4" spiral square-end upcut bit
Router table
DOVETAIL GROOVE DETAIL (STEP 5)
Fence
2 1/4"
1 1/8"
1 1/2"
3/8"
1/2" 14° dovetail bit
Router table
FORMING THE LEGS
7/8"
3/4"
17 1/4"
STEP 1
Cut a 3/4" notch 7/8" deep.
STEP 2
Rout a 1/4" groove 3/8" deep, stopped at 2 1/4" (routed on both sides).
STEP 3
Rout a 1/4" round-nose groove 1/8" deep along front and sides (do not rout back face).
STEP 4
Rout a 1/4" round-nose groove 5/8" deep along front and sides (do not rout back face).
STEP 6
Mark taper lines (cut tapers using taper jig after routing grooves).
Leg blank (laminated)
2 1/4"
Back face of leg
3/4"
3/8"
3"
2 1/4"
2 7/8"
Tapers start at bottom of first cove
STEP 5
Rout a 1/2" dovetail groove 3/8" deep, stopped at 2 7/8" from the top end.
1 1/8"
2 1/4"
1"
5/8"
5/8"
7/8"
ROUND-NOSE GROOVE DETAIL (STEP 3 and 4)
Top end of leg
Fence
Do not rout back face of leg.
3"
1/8"
1/4" spiral round-nose upcut bit
Do not rout back face of leg.
Bottom end of leg
2 1/4"
Taper line
5/8"
1/4" spiral round-nose upcut bit

COFFEE TABLE

or the one shown on *page 84* of this issue, and cut the marked tapers on each leg as shown on Taper-Cutting the Legs drawing.

The four leg braces come next

1 Cut the leg brace (E) to size and shape. See the Leg Brace Part View *at right* for reference.

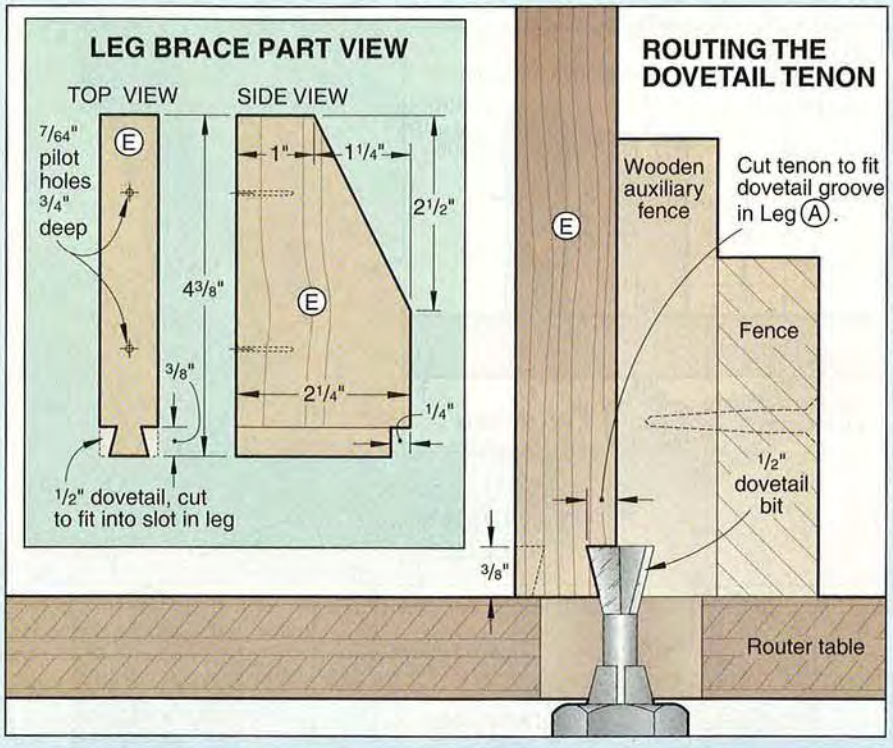
2 Using the Routing the Dovetail Tenon drawing for reference, rout a dovetail along one end of each leg brace (E) to fit snugly into the previously routed dovetails in the legs.

3 Using the Side View of the Leg Brace for reference, cut-off the bottom ¼" of the dovetail tenon. (We did this on our bandsaw.)

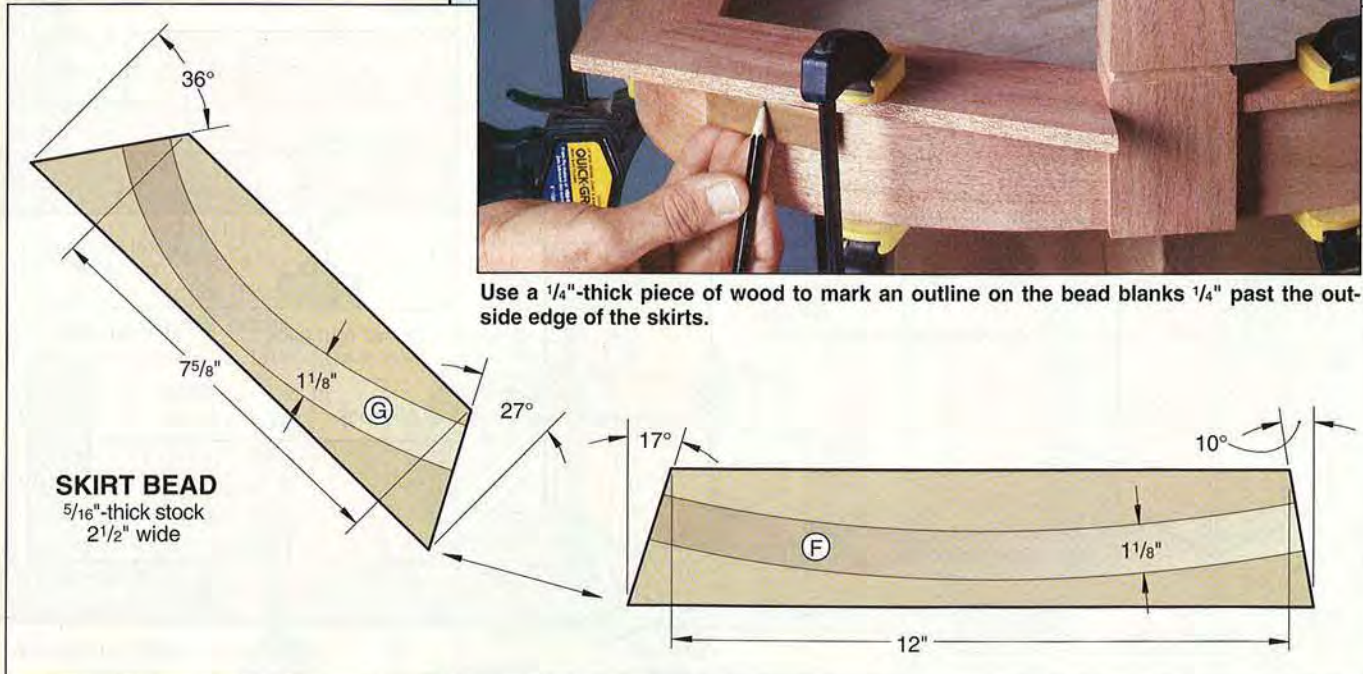
Now, add the bead to the bottom of the skirt

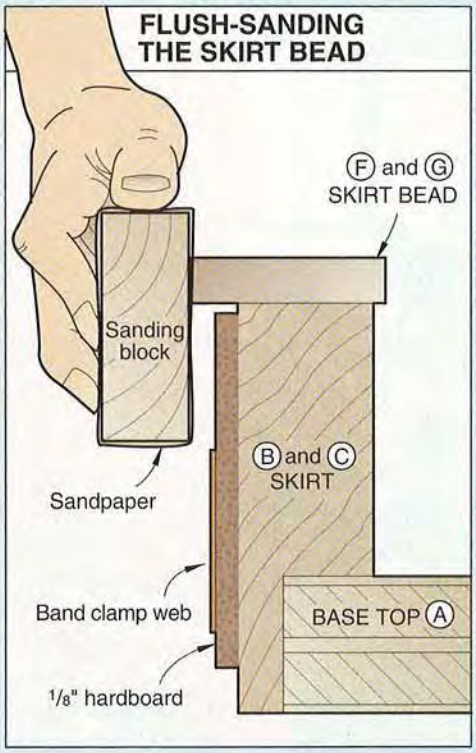
1 Cut the skirt bead blanks (F, G) to the sizes listed in the Bill of Materials and shown on the Skirt Bead drawing.

2 Place the base top (A) upside down on your workbench. Slide the legs in place between the skirt beads. Miter-cut the ends of each skirt bead blank to fit snugly between the legs.



Use a ¼"-thick piece of wood to mark an outline on the bead blanks ¼" past the outside edge of the skirts.





3 Clamp the bead blanks to the skirts as shown in *photo B*. Using a ¼"-thick piece of wood as a spacer, trace around the outer curve on the skirts to mark a ¼" overhang on the bead blanks.

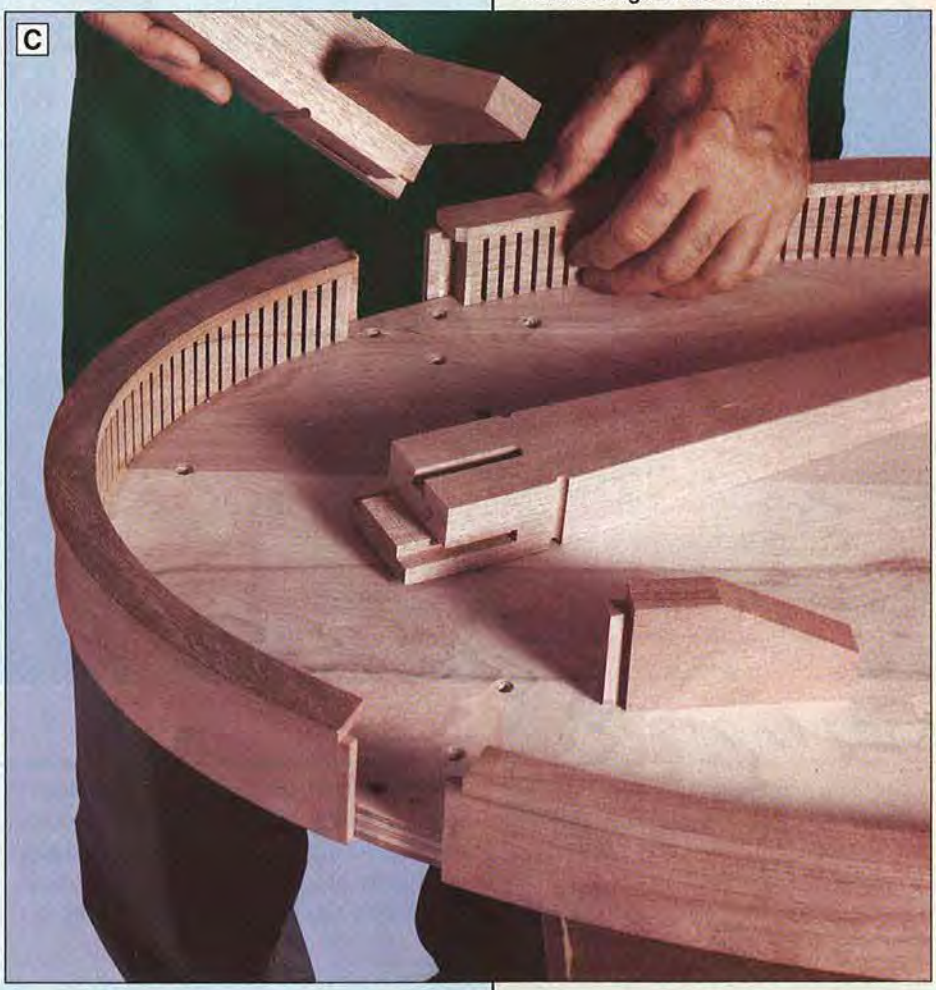
4 Remove just one of the bead blanks from the table, and bandsaw just outside the marked line. Mark a second line parallel to and 1⅛" from the cutline to mark the inside curve. Cut this curve to shape. Next, glue and clamp the shaped skirt bead back in place. Repeat with each skirt bead.

5 Remove the legs from the tabletop assembly. Band-clamp a strip of ⅛" hardboard around outside of the skirt where shown on the Flush-Sanding the Skirt Bead drawing. Sand the outside edge of the bead with 80-grit sandpaper, changing to a finer grit as you approach the finished profile. Continue sanding until the beads are flush with the surface of the hardboard strip as shown in the drawing. This will result in an even ⅛" overhang around the entire outside edge of the skirt.

6 Sand the inside edge of the bead to remove any saw marks.

7 Place the base top (A) on your workbench bottom side up. Slide the base top over the edge of your workbench, and fit the leg/leg braces in place as shown in *photo C*. Drive four screws through the base into the leg to secure the leg assembly in place. Repeat for each leg.

Use a 1/4"-thick piece of wood to mark an outline on the bead blanks 1/4" past the outside edge of the skirts.



Assemble the pieces, and add the finish

1 Using the banding curves technique article for reference, construct the mahogany banded plywood tabletop.

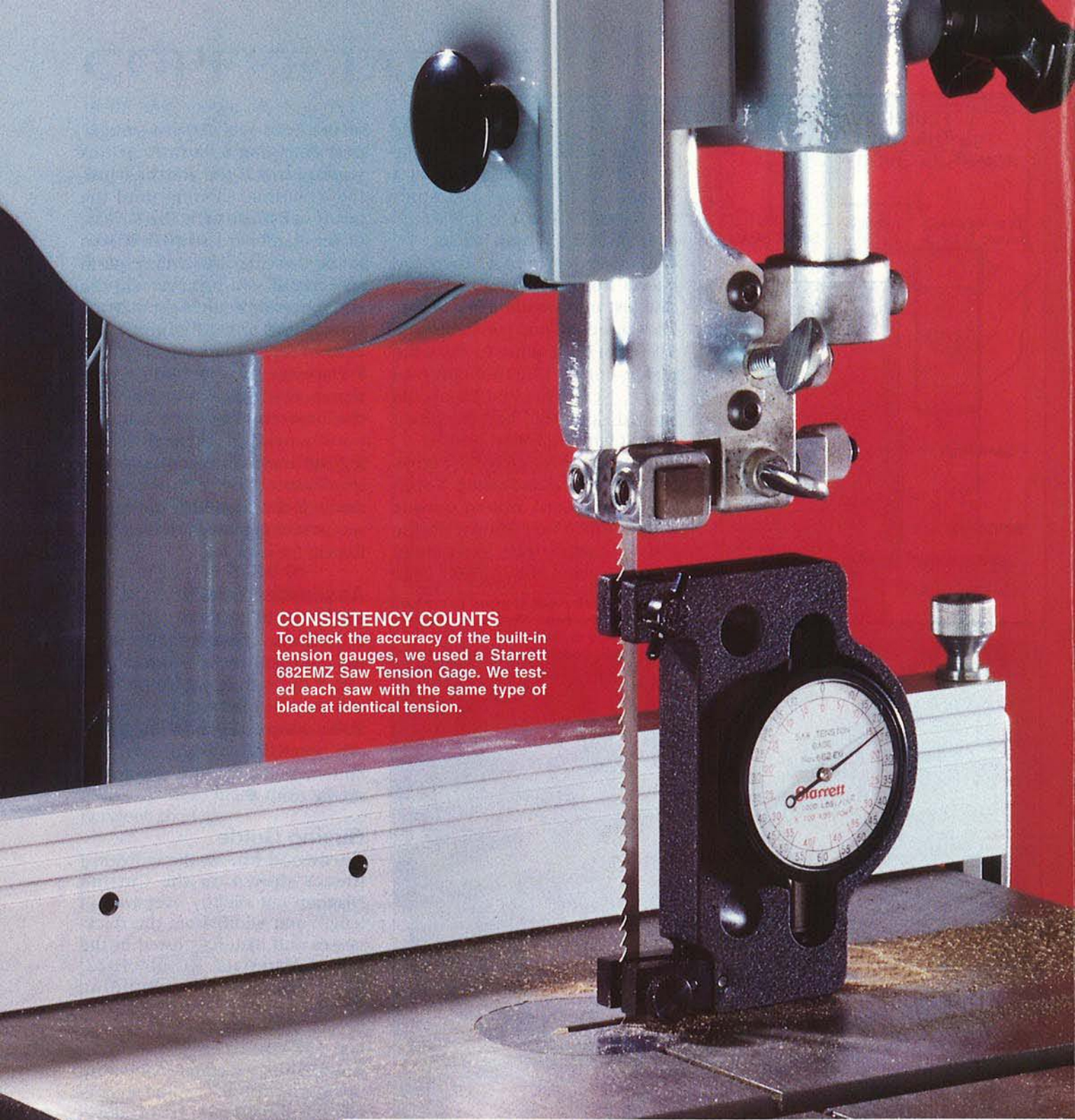
2 Finish-sand, and add the finish. (We used Minwax Antique Oil Finish, following the directions on the can.)

Buying Guide

Hardwood kit. All the individual pieces shown on the Cutting Diagram cut slightly oversized in length and width from the thicknesses and materials listed in the Bill of Materials. Kit no. 1022, $189 ppd. Heritage Building Specialties, 205 North Cascade, Fergus Falls, MN 56537. Or call 800/524-4184 to order.

Router Bits. ¼" spiral round-nose upcut bit, #610; ¼" spiral square-end upcut bit, #603; ½" 14° dovetail bit, #405; ½" flush-timming bit, #5503; 25° raised panel bit, #685. For prices and shipping, contact MLCS, P.O. Box 4053 Rydal, PA 19046. Or call 800/533-9298 to order.

Written by Marlen Kemmet
Project Design: Jan Hale Svec
Illustrations: Kim Downing; Lorna Johnson
Photographs: Hetherington Studio; Hopkins Associates



CONSISTENCY COUNTS
To check the accuracy of the built-in tension gauges, we used a Starrett 682EMZ Saw Tension Gage. We tested each saw with the same type of blade at identical tension.

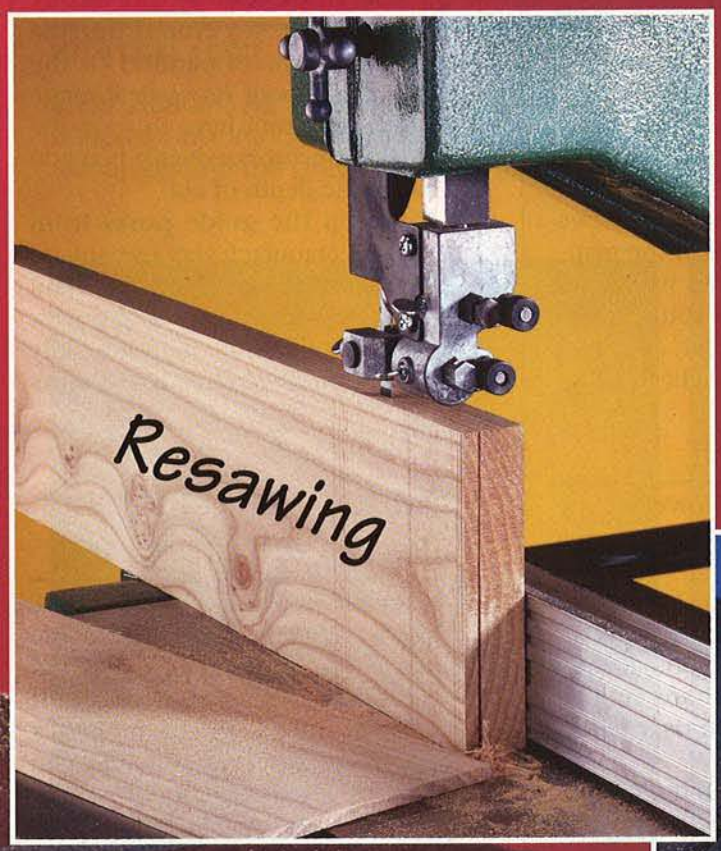
FAST FACTS

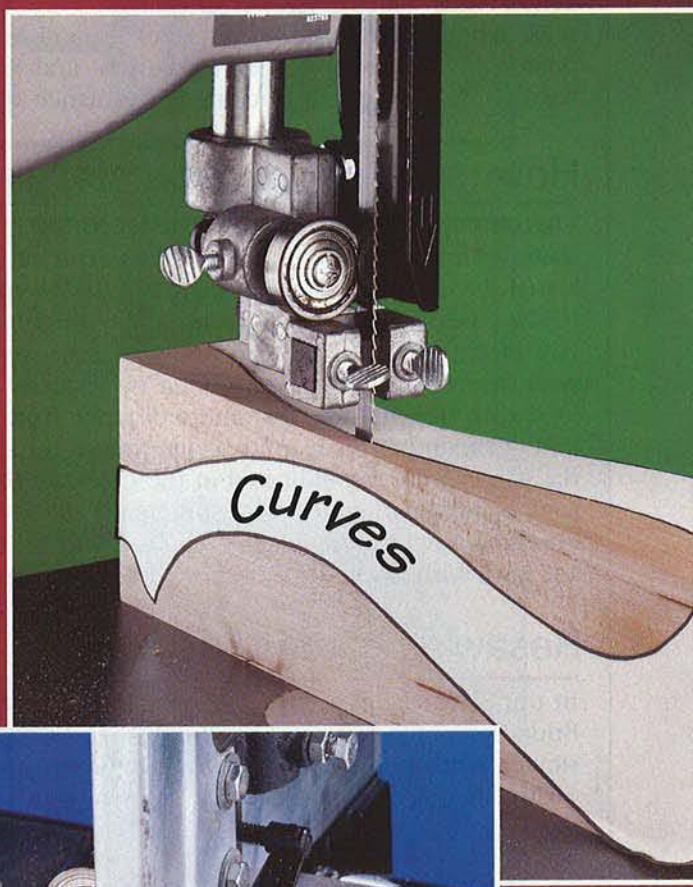
- All the saws in our test have ample power to resaw, but the actual sawing "muscle" varied greatly, even among machines with similar horsepower ratings.
- With one exception, the saws come with guide blocks as standard equipment. In general, these guides work well and are easier to adjust than ball-bearing guides.

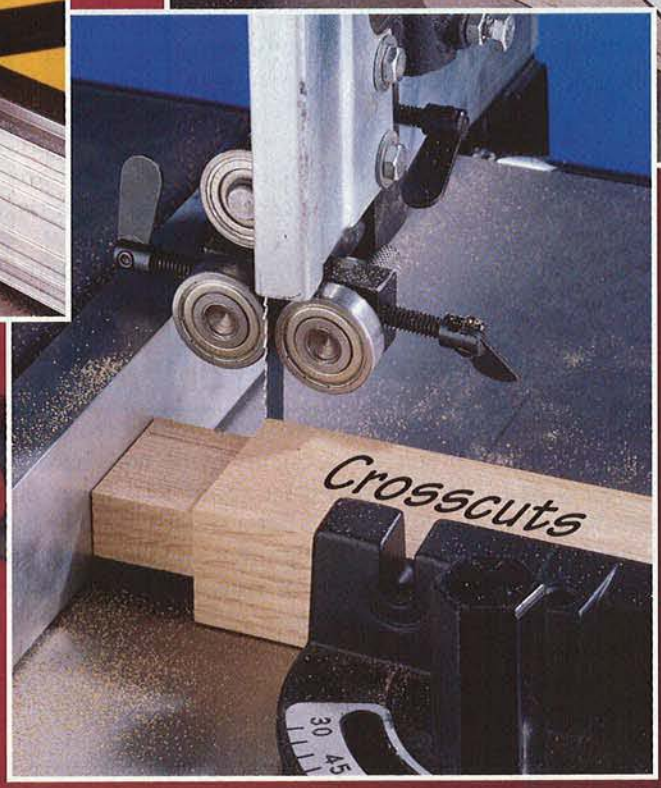
Print this article

Stationary Bandsaws

The versatile cutting tool no woodworker should be without







- You'll want to replace the blade that comes with a new bandsaw. A high-quality blade dramatically improves bandsaw performance—it cuts better and runs truer.

Continued

Our testing produced piles of sawdust

After spending several hours cleaning off the packing grease, assembling the machines, and reading the instruction manuals, we familiarized ourselves with the adjustments and features of each saw. After noting the fit and finish of main components, we also inspected the saws closely to check out key parts such as wheel bearings and guides.

To test resawing capability, we installed a ½"-wide, hook-style Lenox blade with 3 teeth per inch in each saw, and turned several 6"-wide white oak planks into stacks of ½"-thick boards. We took those boards and cut intricate curves with ¼" and ⅛" blades, using these narrow blades to check tracking performance and guide adjustments.

How much saw do you really need?

Throat capacity—the distance between the blade and the support frame—limits the width of material you can cut. For the saws tested, actual throat sizes ranged from 12¼" (Bridgewood PBS320) to 16½" (Grizzly G1073). For small projects, any throat size will work, but if you plan to cut out life-size plywood lawn ornaments or projects with large curved edges, consider a 16" capacity saw.

Cutting height—the maximum distance from the table to the bottom of the upper blade guide—determines the thickness of the material you can cut. As indicated in the chart, all of the saws will cut at least 6" material, generally a sufficient capacity unless you want to bevel-cut bowl turning blanks. You can outfit the Delta, Jet, and Sears 14" saws with an optional riser block to boost cutting height to 12".

Resawing hardwoods requires power

In our resawing test, all the saws handled the task. However, the Bridgewood PBS320, Powermatic 044, and Grizzly G1148 required a slower feed rate to prevent them from bogging down.

The saws in our test ranged in horsepower from ¾- to 1½-hp, but those ratings proved deceiving. The ¾-hp Sears 24834 bogged down less during resawing than the 1-hp Jet JWBS14CS, even though their motors each have 10-amp ratings. That said, both still have enough power to handle thicker capacities when you install the riser block, provided you slow down the feed rate.

The resawing champs are the Grizzly G1073 and Delta 28-280. Their 1½- and 1-hp motors draw 16 and 13.4 amps respectively.

A good blade makes a big difference

We recommend buying good aftermarket blades from companies such as Lenox, Olson, or Starrett. A quality blade with hardened teeth typically costs $12-$15 compared to about $10 for a "standard" blade. For the extra few dollars, you get a slightly thinner blade with smooth welds and a straight back edge that runs truer and produces better cuts. Since there's less drag, it runs cooler and lasts longer, which also means fewer blade changes.

Unless you work extensively with abrasive exotic woods such as wenge or cocobolo, steer clear of bi-metal blades. These blades cost more and require more tension than some saws can deliver.

Sawing accuracy relies

To keep the blades running true, bandsaws have guide assemblies above and below the table. Guide blocks or bearings within these assemblies keep the blade from shifting side to side. Thrust bearings, mounted behind the blade, keep it from bowing backward as you cut. The key factors affecting guide performance include:

• **Guide posts.** The upper guide assembly mounts to a guide post that you raise and lower depending on the thickness of the stock you're cutting. It's crucial that the guide post travel parallel to the blade throughout its vertical range so that you don't have to reset the guides or thrust bearings when you change the depth of cut.

To keep the guide posts from twisting, manufacturers use square steel bar stock or tubing, or round steel rods with alignment grooves. Of the saws with round posts, only the post on the Delta 28-280 locks

Blade tracking affects sawing accuracy, too

A bandsaw's wheels should be balanced to run true, and the blade should track along the crowned center of the upper wheel tire. If the blade rides to the front or back edge of the wheel or wanders, you won't be able to position it properly between the guides.

The wheels in all the saws were surprisingly well balanced, and all of them tracked ⅜" and larger blades. But as indicated in the chart, several saws had problems tracking ¼" blades on center, and only the Delta, Reliant, and Star Tools saws tracked ⅛" blades without a lot of tweaking. Of those three saws, only the Delta has hard, composite metal square guide blocks, making it unique in its ability to cut intricate curves with great precision.

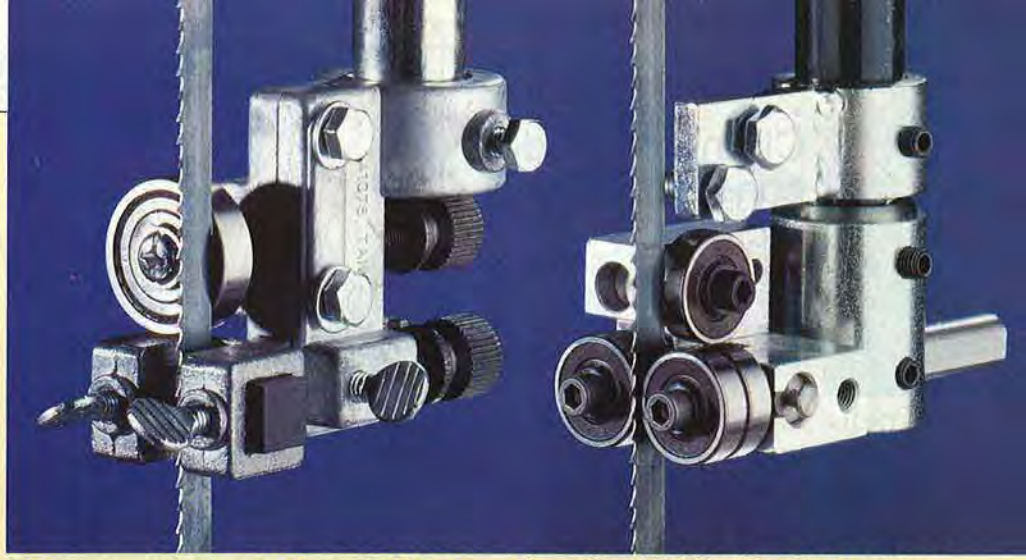
on quality guides

at all heights without twisting, due to its round-bottomed groove and ball-shaped locking screw.

We liked the added convenience of the spring-loaded tension screw on the Sears 24834 and Jet JWBS14CS that keeps the guide post from crashing to the table when you loosen the locking screw. Grizzly offers a similar feature on the G1073.

•Guide blocks or bearings. All of the saws except the Powermatic 044 come with guide block-style guides, as shown *right*. The square guide blocks, found on the Delta, Jet, and Sears 24834, worked the best with the ¼" and ⅛" blades since they put more surface area in contact with the blade than round steel guide blocks.

Ball-bearing guides reduce wear and heat buildup in the blade, and they work particularly well with ¼"-wide and wider blades. None of them worked well with ⅛" blades.



The upper guides on the Sears 24834 (shown) as well as the 14" saws from Delta and Jet, come with square guide blocks and a thrust bearing. Micro-adjustment knobs simplify setting the guides. (Guard removed for clarity.)

The optional ball-bearing Carter guides for the Jet JWBS14CS adjust with fingertip pressure and have setscrews to lock the guide bearings in place. This accessory costs about $150. (Guard removed for clarity.)

The standard guide bearings on the Powermatic 044 require a wrench and were hard to adjust. The optional Carter guides for the Jet JWBS14CS, shown *above*, require an allen wrench, but work well and adjust easily. Star Tools' optional guides perform smoothly and adjust without any tools.

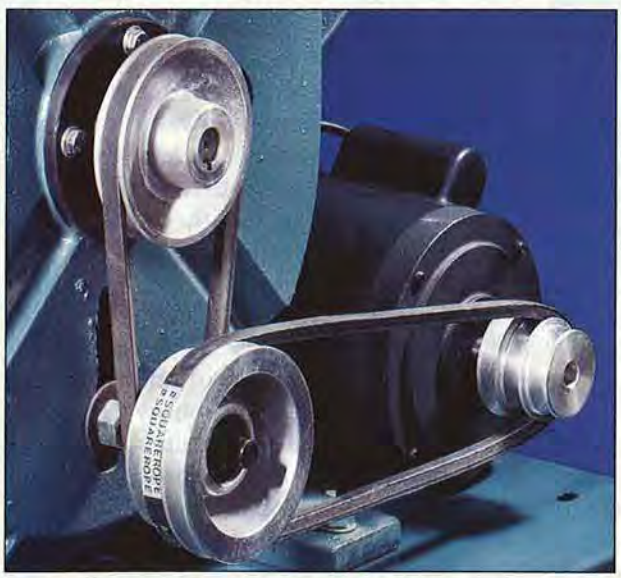
The Sears 24834, Jet JWBS14CS, Delta 28-280, and Grizzly G1073 feature micro-adjustment screws on the upper guides (as shown in the photo *above left*), which simplify setting the guides with precision. The Delta and Grizzly models also have micro-adjustments on the lower guides.

For wood, one speed is really all you need

For most crosscutting, ripping, and resawing, a blade speed between 2,600 and 3,000 feet per minute (fpm) works well. The single-speed saws all run at 3,000 fpm, while the top speed on the multispeed saws also falls within this range.

If you want more control when making intricate cuts, get a saw that also has speeds in the 1,800-2,000 fpm range. Even slower speeds (800-1,000 fpm) produce better cuts in materials such as plastics and nonferrous metals that clog up blades at higher speeds. Only the Reliant EE166 and Star Tools S3502 offer such a low-end speed.

With the exception of the direct-drive Bridgewood PBS320, all the saws have pulleys and drive belts to bring their blades up to speed.



The Star Tools S3502 (shown) and the Reliant EE166 use three-step pulleys on the motor and a jackshaft to provide three speeds. The second V-belt, which transfers the power from the jackshaft to the lower wheel, is difficult to tension.

The three-speed Grizzly 1073 has a three-step pulley on both the motor and lower wheel shaft, making speed changes a snap. The three-speed Star Tools and Reliant models use a jackshaft arrangement, shown *left*. A bolt-on cover complicated changing these belts.

The two-speed Sears 24393 and Grizzly G1148 use one belt with a pair of double-groove pulleys. Changing speeds requires awkwardly reaching through the spokes of the lower wheel to reposition the belt, although the pivoting motor mount makes belt tensioning easy.

Continued

Changing blades: consider these factors

•**Tensioning.** We checked the tensioning scales as shown on the *first page of this article,* and only the Delta 28-280's scale registered remotely close. You're better off checking the tension by hand, with the saw unplugged. A properly tensioned blade should deflect about ¼" when you apply moderate finger pressure to its side.

To quickly aadjust blade tension, look for a tensioning knob located above the upper wheel housing as shown *below*. The knob on the Reliant saw mounts on a short adjusting rod close to the scale, making it hard to reach.

You also want the tensioning spring to properly tension the blade with just a few turns. The

The tensioning scale on the Delta 28-280 registered the closest to proper tension of any of the saws. The tensioning knob extends above the top of the upper wheel cover, providing easy access.

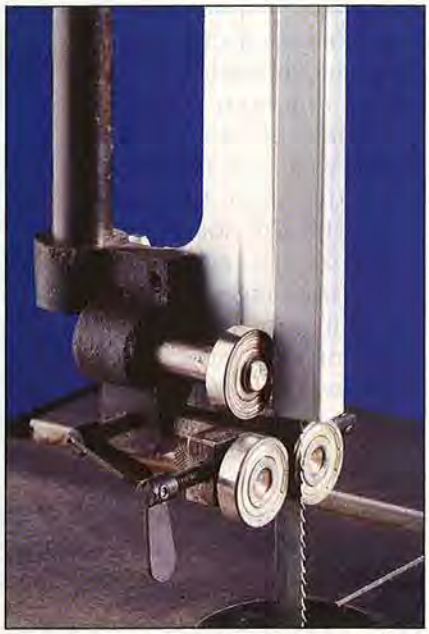
Sears 24393 required only three turns, the Grizzly G1073 six turns, and the Delta 28-280 10 turns to make the blade taut. The weak spring in the Star Tools and Reliant models required 20 or more revolutions of the tensioning knob.

•**Wheel covers.** Saws with hinged wheel covers (see the chart) speed up blade changing immensely. Look for quick, positive latches like those on the Delta, Grizzly G1073, Jet, and Sears 14" models.

•**Blade guards.** Most saws have L-shaped guards that cover the right side and front of the blade. This type provides protection, and allows you to conveniently change blades with the guard in place.

But the Bridgewood PBS320, Grizzly G1148, Reliant EE166, and Star Tools S3502 all have U-shaped blade guards that wrap around the blade on three sides, as shown in the photo *right*. This requires you to remove the guard in order to change the blade—a real hassle.

Note: As this issue went to press, Star Tools replaced its model S3502 with an S3502N. The updated model will have several improvements including hinged doors, larger motor, dust-collection port, cast-iron wheels, and brake.



The blade guard on the Star Tools S3502 (and several other models) wraps around the blade, requiring you to remove it to change blades. Ball-bearing guides shown are optional.

A DETAILED LOOK AT 10 BANDSAWS

	BRAND	MODEL	CAPACITY: THROAT (INCHES)	CAPACITY: MAXIMUM THICKNESS (INCHES)	MOTOR: HORSEPOWER	MOTOR: AMPS (1)	MOTOR: VOLTAGE	BLADE: BLADE SPEED (FEET PER MINUTE)	BLADE: LENGTH (INCHES)	BLADE: RATED WIDTH CAPACITY (INCHES)	BLADE: DRIVE TYPE (2)	BLADE: TABLE EXIT (3)	TABLE: TABLE TILT RANGE	TABLE: SIZE (INCHES)	TABLE: TRUNNION TYPE (4)	TABLE: TABLE HEIGHT FROM FLOOR (INCHES)
14" & UNDER	BRIDGEWOOD	PBS320	12¼	6½	1	5	220	3440	88	⅛-¾	D	F	45°R, 10°L	15x15	P	42
	DELTA	28-280	13¾	6¼	1	13.4	110/220	3000	93½	⅛-¾	B	S	45°R, 10°L	14x14	S	43½
	JET	JWBS-14CS	13½	6¼	1	16	110/220	3000	93½	⅛-¾	B	S	45°R, 10°L	15x15	S	44
	POWERMATIC	044	13½	9	1	7	110/220	3000	102	⅛-¾	B	S	45°R, 15°L	15x15	S	44
	SEARS CRAFTSMAN	24834	13½	6	¾	10	110	2400	93½	⅛-¾	B	S	45°R	14x14	S	44½
15" & 16" MODELS	GRIZZLY	G1148	14¾	7½	¾	13	110/220	1750, 2600	103	⅛-¾	B	S	45°R, 10°L	16x16	S	38
		G1073	16½	7¾	1½	16	110/220	1900, 2400, 2900	113	⅛-1	B	S	45°R, 10°L	17x17	S	42
	RELIANT	EE166	15¾	9¾	1½	18	110/220	1000, 1600, 2800	111	¼-1	B	S	45°R, 10°L	16x16	S	39½
	SEARS CRAFTSMAN	24393	14¾	8½	¾	11	110/220	2000, 3000	111	3/16-¾	B	F	45°R	15x15	P	36
	STAR TOOLS	S3502	15¾	9¾	1½	18	110/220	1000, 1600, 2800	111	¼-1	B	S	45°R, 10°L	16x16	S	39½

NOTES:

1. Amps at 110 volts unless 220 only.
2. (B) Belt drive (D) Direct drive
3. (S) Side of table (F) Front of table
4. (S) Saddle type (P) Single pivot-pin type
5. (SL) Sealed (SH) Shielded
6. (U) Upper only (B) Both upper and lower (N) Neither
7. (BB) Ball-bearing (P) Graphite-impregnated plastic (S) Steel
8. (AL) Aluminum (CI) Cast iron (FS) Fabricated steel
9. E Excellent G Good F Fair P Poor
10. All adjustments and guard/cover removals factored in.
11. Factors considered include knob size/location and number of turns.
12. E Tracked ⅛" blade easily; G Tracked ⅛" blade with minor adjustments; F Had difficulty tracking ⅛" blade
13. E Easy to open, hinged; G Knobs fail to keep door solid; G Hinged but threaded knobs take longer to open; F Hinged one-piece with threaded knobs; P Covers not hinged
14. E Easy tilt, smooth; G Easy tilt; F Jerky operation
15. E Solid support; G Minor movement; F Major movement; * Has one-piece stand/saw cabinet.

BETWEEN $400 AND $750

	BEARINGS/GUIDES							PERFORMANCE (9)																
	LOWER WHEEL BEARING (5)	MICRO-ADJUST GUIDES (6)	UPPER GUIDE (7)	LOWER GUIDE (7)	WHEEL MATERIAL (8)	FRAME MATERIAL (8)	DUST PORT SIZE (INCHES)	BLADE CHANGING (10)	TENSIONING (11)	BLADE TRACKING (12)	WHEEL COVERS (13)	TRUNNION OPERATION (14)	STAND STABILITY (15)	VIBRATION	GUIDE POST (16)	UPPER GUIDE (17)	LOWER GUIDE (17)	RIP FENCE (18)	OPTIONS (19)	COUNTRY OF ASSEMBLY (20)	WEIGHT (POUNDS)	SELLING PRICE (21)	COMMENTS
	SL	N	BB	BB	CI	FS	2½	F	F	G	F	F	G	E	E	G	F	G		I	143	$660*	Small capacity and requires 220-volt service.
	SL	B	S	S	AL	CI	1¼	E	E	E	E	E	E	E	E	E	F	NS	F, R	U	224	750	Precision and power; the top saw in the test.
	SL	U	P	P	AL	CI	2½	E	G	G	E	G	E	E	G	E	G	NS	C, F, R	T	185	580	Good performance, but lacks power of top saws.
	SH	N	BB	BB	AL	FS	3	F	G	F	G	F	G	E	E	F	F	NS	F	T	165	645	Good capacity, but guides are hard to adjust.
	SH	U	P	P	AL	CI	2½	E	G	G	E	G	E	E	G	E	G	NS	F, R	T	195	550	A great value with power and features.
	SH	N	S	S	AL	FS	2	G	G	G	G*	E	E	G	G	G	G	G	BB	T	164	445*	Good capacity for the money.
	SL	B	S	S	CI	CI	2½	E	E	F	E	E	G	G	G	E	E	E	BB	T	445	575*	Heavy-duty, powerful saw at a bargain price.
	SH	N	S	S	AL	CI	--	G	P	G	P	G	F	G	G	G	G	G		T	285	500*	Similar to Star—lacks convenience features.
	SH	N	S	S	CI	FS	4	G	E	G	E	G	*	G	E	G	G	F		T	220	700	A solid performer.
	SH	N	S	S	AL	CI	--	G	P	G	P	G	F	G	G	G	E	G	BB	T	285	525*	Big capacity, good operation for low price.

16. E Follows blade front-to-back and side-to-side; locks straight forward.
G Follows blade but must take care to lock straight forward.

17. E Easy to set, easy access, micro-adjust
G Easy to set, good access
F Limited access or hard to set

18. E Solid lock, good height
G Lock slightly harder to use, short height
F Not adjustable, hard to lock in vertical
NS Not standard

19. (C) Carter brand ball-bearing guides
(BB) Ball-bearing guides
(F) Fence (R) Riser block

20. (U) United States
(T) Taiwan
(I) Italy

21. Prices current at time of article's production.
(*) Plus shipping. No sales tax on out-of-state sales.

WHERE TO CALL:

Bridgewood
Available from Wilke Machinery Co.
717/764-5000

Delta
800/438-2486
412/963-2400

Grizzly
800/523-4777 (East of Mississippi)
800/541-5537 (West of Mississippi)

Jet
800/274-6848
206/351-6000

Powermatic
800/248-0144
615/473-5551

Reliant
Available from Trendlines
800/877-7899

Sears Craftsman
Call or visit your local Sears store

Star Tools
888/678-8777
562/654-3065

Other points to consider

•**Table tilt/trunnions.** All of the saws we tested tilt 45° right, and most tilt at least 10° left. Trunnions control table tilt, and it's the smoothness of the trunnions that matters most. If you plan to switch back and forth between straight and bevel cuts on a regular basis, choose a model that rates excellent or good in the chart.

•**Sealed lower wheel bearings.** Because sawdust accumulates in the lower wheel housing, the lower wheel bearings should have rubber seals to protect them from dust. As indicated in the chart, some manufacturers install shorter-lived metal-shielded bearings.

•**Stands.** Most stands were solid, but vibration and a lack of rubber foot pads caused the Star Tools and Reliant saws to shimmy. The Sears 24393 stands directly on the floor, which puts its table at 36"— an uncomfortably low working height for our 6'2" tester.

•**Accessories.** Fences don't come standard on some of the saws. These and other options can boost the price of a saw substantially.

The bottom line: what we'd buy if we were in the market

The Delta 28-280 is the top bandsaw in this test. If the $750 price tag seems too high, you can buy an open-stand version (28-275) with a ¾-hp motor for about $600.

Of the saws priced under $600, our nod goes to the Jet JWBS-14CS, although it faces competition from the similar Sears Craftsman 24834. The Craftsman motor seemed to outpower the Jet motor slightly, but the shielded lower wheel bearing on the Craftsman is more susceptible to dust infiltration than the sealed bearing in the Jet. At $580, the JWBS-14CS costs $30 more than the Craftsman, but comes with an enclosed stand. You can buy an open-stand version of the Jet for about $500.

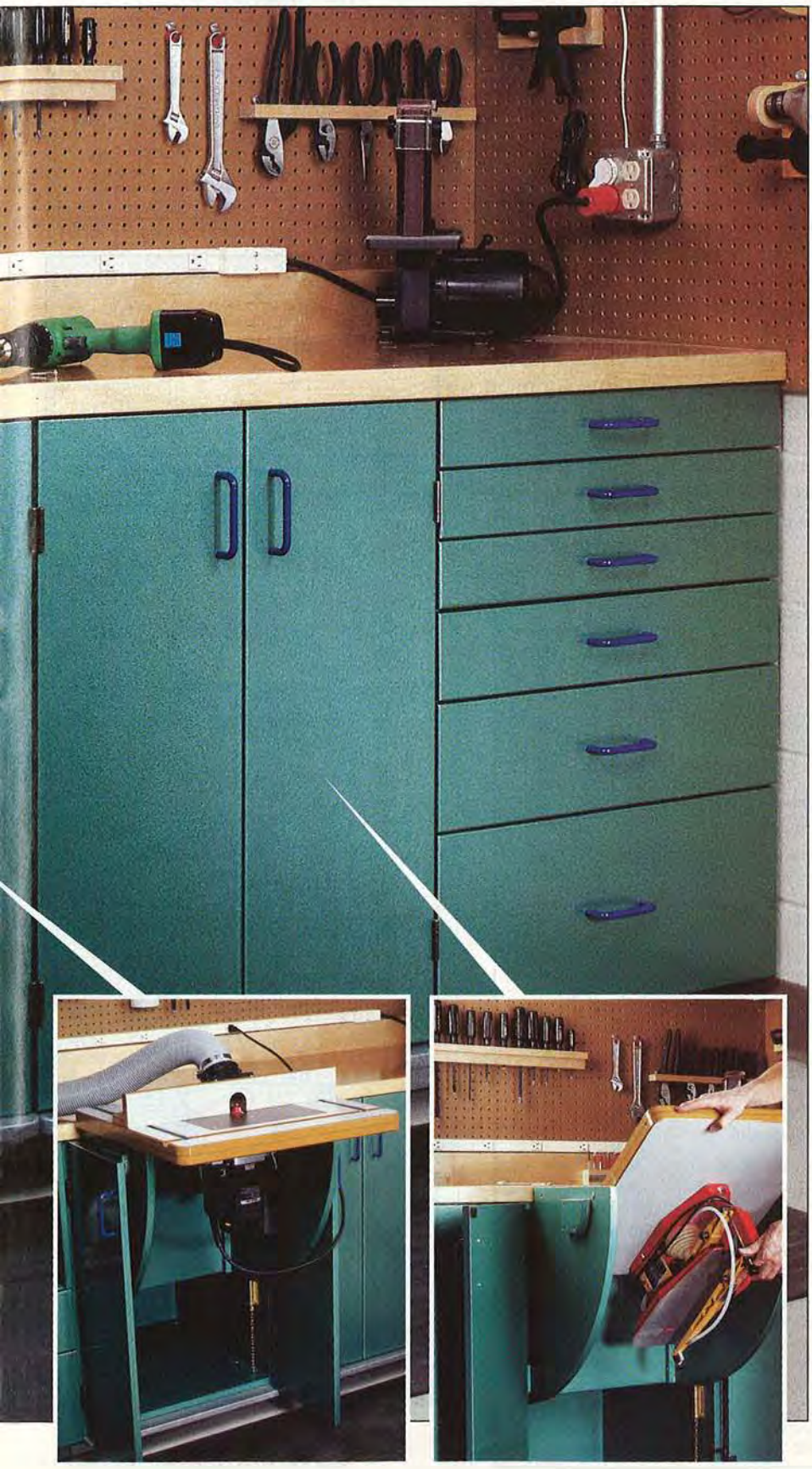
The Grizzly G1073 has loads of resawing power, but we had to make a lot of adjustments before it performed to its full potential.

Product testing: Dave Henderson
Graphic design: Perry McFarlin
Photographs: Marty Baldwin

Full-Service

To customize our modular workbench, we included a flip-up router table in one cabinet as shown *at right* and a lift-up scrollsaw table as shown *at far right.*

Workbench with a twist



At the heart of any good shop lies a great workbench. With that in mind, we went all out to design the unit shown here. On the next few pages, you'll learn how to build the end cabinets, drawers, and laminated benchtop. Then, in the next issue, we'll show you one of the center cabinets with the lift-up router table in it. And finally, in that same issue, we'll show this same cabinet with a rotating top for mounting a benchtop tool.

Smart Solutions For Your Basement Shop
IDEA SHOP 3
From The Editors Of *WOOD*® Magazine

Start with the two basic end cabinets

1 Cut the cabinet tops and bottoms (A), sides (B), backs (C), and shelf (D) to the sizes listed in the Bill of Materials from ¾" medium density fiberboard (MDF). As noted on the Cutting Diagram, MDF measures 1" wider and longer than regular 4×8' sheet goods. Birch plywood would also work fine for these pieces.

2 Cut the rabbets and dadoes in the sides (B) where shown on the Exploded View drawing. Note that only the left-hand cabinet is dadoed for the shelf (D).

3 Glue and clamp the cabinets (A, B, C, D) together in the configura-

Continued

Full-Service Workbench

tion shown on the Exploded View, checking for square.

4 Cut the base front and back (E), sides (F), and cleats (G) to size.

5 Cut the rabbets in parts E and F where shown on the Exploded View drawing. Glue and screw the bases (E, F, G) together in the configuration shown. Fill the counterbored screw holes with wood filler, and later sand smooth with 220-grit sandpaper.

6 Cut the left-hand cabinet front banding strips H and I to size. The thickness of the strips needs to be the same as the thickness of the MDF or plywood. Glue the strips to the front of the cabinet where shown on the Exploded View.

7 Using the Side Section Views for reference, drill the mounting holes and screw the bases to the bottoms of the cabinets. Note that the back edge of the cabinet overhangs the base by ¾".

Add the drawers for the two cabinets next

1 From ½" stock (we used birch plywood), cut all the drawer fronts (J,L,N,P,R), and sides (K,M,O,Q,S) to the sizes listed in the Bill of Materials. Cut the drawer bottoms (T) from ¼" hardboard and false fronts (U,V,W,X) from ¾" MDF.

2 Using the dimensions on the Drawer drawing, cut rabbets in the drawer sides.

3 Drill countersunk mounting holes, and glue and screw each drawer (not including the false drawer fronts) together, measuring diagonally to check for square.

4 Using the instructions supplied with the drawer guides and the dimensions on the Side Section Views, screw the guides to the bottom side edge of each drawer. Make sure each guide is flush with the front of the drawer box.

Continued

Bill of Materials

Part	Finished Size T	W	L	Matl.	Qty.
CARCASES AND BASES					
A top & bottom	¾"	23"	23½"	MF	4
B sides	¾"	23¾"	31¾"	MF	4
C back	¾"	23½"	31¾"	MF	2
D shelf	¾"	22¾"	23"	MF	1
E front & back	¾"	4"	23½"	MF	4
F sides	¾"	4"	19"	MF	4
G cleats	¾"	4"	23½"	MF	4
H banding	¾"	¾"	22½"	H	1
I banding	¾"	¾"	15"	H	2
DRAWER 1					
J front & back	½"	1⅜"	20¾"	BP	2
K sides	½"	1⅜"	22½"	BP	2
DRAWERS 2 & 3					
L fronts & backs	½"	2¼"	20¾"	BP	4
M sides	½"	2¼"	22½"	BP	4
DRAWER 4					
N front & back	½"	3¼"	20¾"	BP	2
O sides	½"	3¼"	22½"	BP	2
DRAWER 5					
P fronts & backs	½"	5¼"	20¾"	BP	4
Q sides	½"	5¼"	22½"	BP	4
DRAWER 6					
R fronts & backs	½"	8¼"	20¾"	BP	4
S sides	½"	8¼"	22½"	BP	4

Part	Finished Size T	W	L	Matl.	Qty.
DRAWER BOTTOMS AND FRONTS					
T bottoms	¼"	21½"	22½"	HB	8
U drawers 1, 2, & 3	¾"	3⅜"	24"	MF	3
V drawer 4	¾"	4⅜"	24"	MF	1
W drawer 5	¾"	6⅜"	24"	MF	2
X drawer 6	¾"	10"	24"	MF	2
BENCHTOP					
Y top	1½"	23⅜"	96"	LMF	1
Z banding	¾"	1½"	97½"	H	1
AA banding	¾"	1½"	24⅛"	H	2
BB back	¾"	5¼"	97½"	H	1
CC spacer	¾"	4½"	7"	H	1

Materials Key: MF–medium density fiberboard, H–hardboard, BP–birch plywood, HB–hardboard, LMF–laminated medium density fiberboard.

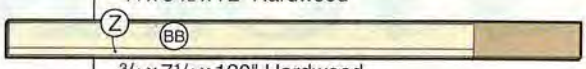
Supplies: #8×1", #8×1¼", #8×1½", #8×2" flathead wood screws; 8–3¾" pulls; 8 pair of 22" bottom-mount drawer guides; primer; paint; polyurethane. For the bench vise (we used a Wilton 4×7" pivot-jaw vise), 4–⅜×3" lag screws with flat washers.

Buying Guide

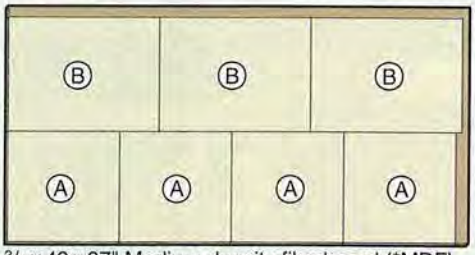
Vise. Wilton 4×7" pivot-jaw woodworking vise. Maximum opening 10", weighs 29 lbs. Enclosed spindle prevents sawdust from entering threads. Part no. 126504PR, $99.99 plus $8.99 shipping and handling. Woodcraft, 210 Wood County Industrial Park, P.O. Box 1686, Parkersburg, WV 26102-1686. Or call 800/225-1153 to order.

CUTTING DIAGRAM

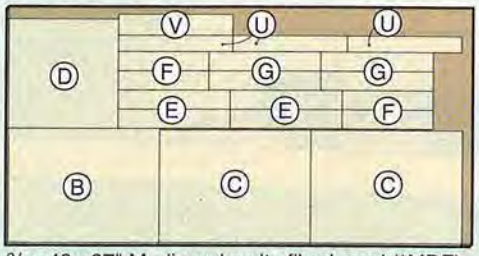
¾ x 5½ x 72" Hardwood



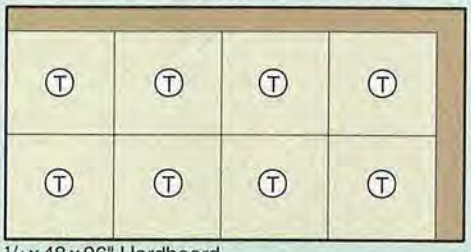
¾ x 7¼ x 120" Hardwood



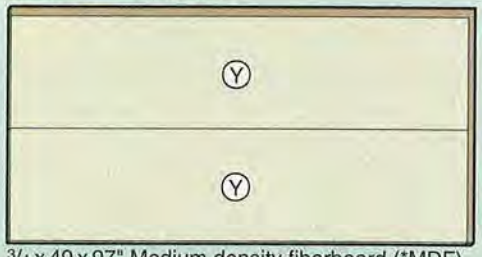
¾ x 49 x 97" Medium density fiberboard (*MDF)



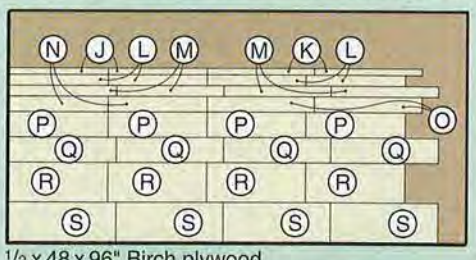
¾ x 49 x 97" Medium density fiberboard (*MDF)



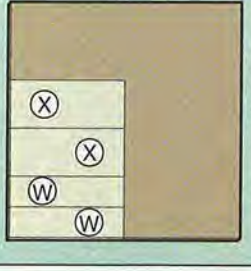
¼ x 48 x 96" Hardboard



¾ x 49 x 97" Medium density fiberboard (*MDF)

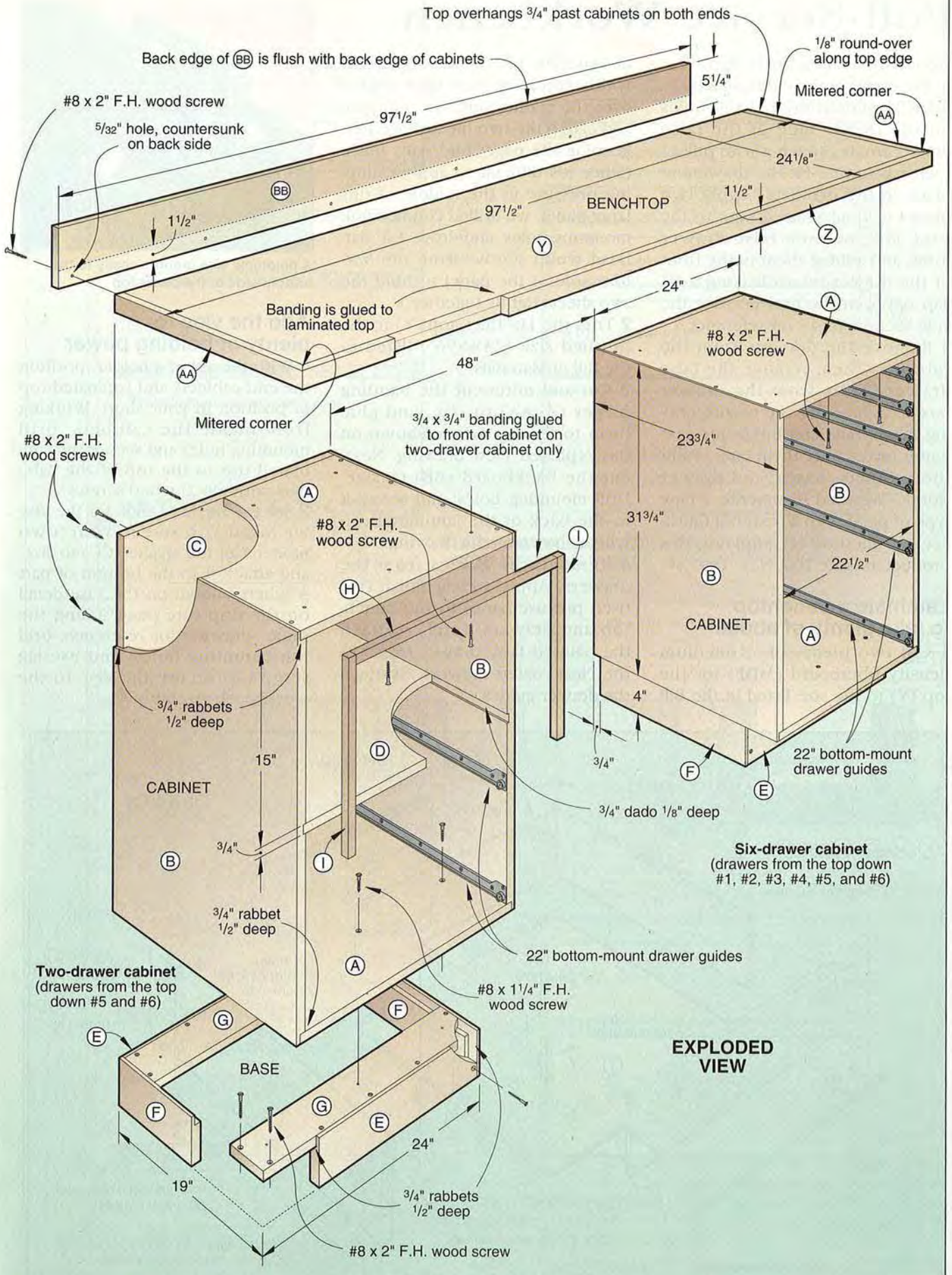


½ x 48 x 96" Birch plywood



¾ x 49 x 48½" Medium density fiberboard (*MDF)

*Standard 4x8 sheet particleboard or plywood will work in place of MDF


Top overhangs 3/4" past cabinets on both ends
1/8" round-over along top edge
Back edge of (BB) is flush with back edge of cabinets
5 1/4"
Mitered corner
(AA)
#8 x 2" F.H. wood screw
5/32" hole, countersunk on back side
97 1/2"
24 1/8"
(BB)
1 1/2"
97 1/2"
BENCHTOP
1 1/2"
(Z)
(Y)
24"
Banding is glued to laminated top
(A)
#8 x 2" F.H. wood screw
48"
(AA)
Mitered corner
3/4 x 3/4" banding glued to front of cabinet on two-drawer cabinet only
#8 x 2" F.H. wood screws
23 3/4"
(A)
(I)
#8 x 2" F.H. wood screw
(B)
31 3/4"
(C)
(H)
22 1/2"
(B)
CABINET
(A)
(B)
3/4" rabbets 1/2" deep
4"
15"
(D)
CABINET
3/4"
22" bottom-mount drawer guides
(F)
(E)
3/4" dado 1/8" deep
Six-drawer cabinet
(drawers from the top down #1, #2, #3, #4, #5, and #6)
3/4"
(B)
(I)
3/4" rabbet 1/2" deep
22" bottom-mount drawer guides
(A)
Two-drawer cabinet
(drawers from the top down #5 and #6)
#8 x 1 1/4" F.H. wood screw
(G)
(F)
(E)
EXPLODED VIEW
BASE
(F)
(G)
(E)
24"
19"
3/4" rabbets 1/2" deep
#8 x 2" F.H. wood screw

Full-Service Workbench

Mount the mating guide hardware to the inside of the end cabinets.

5 Drill counterbored shank holes on the *inside* face of the false drawer fronts. Attach a wire pull to each false front. Fit the drawers in place in the cabinets. Apply two pieces of double-faced tape to the back side of each false drawer front, and adhere them to the front of the drawer boxes leaving a ⅛" gap between the drawers. See the Side Section Views for reference.

6 Remove the drawers from the cabinets. Then, remove the false drawer fronts from the drawer boxes, numbering the corresponding false fronts and boxes for ease when reattaching them later. Paint the cabinets, bases, and drawer fronts. (We used Hammerite, a new type of paint with a textured finish. See our method for applying this product in issue 100, Nov. 1997.)

Laminate a benchtop to take plenty of abuse

1 Cut two pieces of ¾" medium density fiberboard (MDF) for the top (Y) to the size listed in the Bill of Materials plus 1" in length and width. Spread an even layer of glue over the mating surfaces, and glue and clamp the two pieces together, keeping the edges and ends flush. (Since it's difficult to apply clamping pressure in the middle of this large panel, we drilled countersunk mounting holes, and drove 1¼" flathead wood screws from the *bottom side* of the panel to hold the two sheets tightly together.)

2 Trim the 1½"-thick top (Y) to the finished size (23⅜×96") listed in the Bill of Materials.

3 Cut and miter-cut the banding pieces (Z, AA) to size, and glue them to the top where shown on the Exploded View drawing. Next, cut the backboard (BB) to size. Drill mounting holes, and screw it to the back of the laminated top where shown on the drawing.

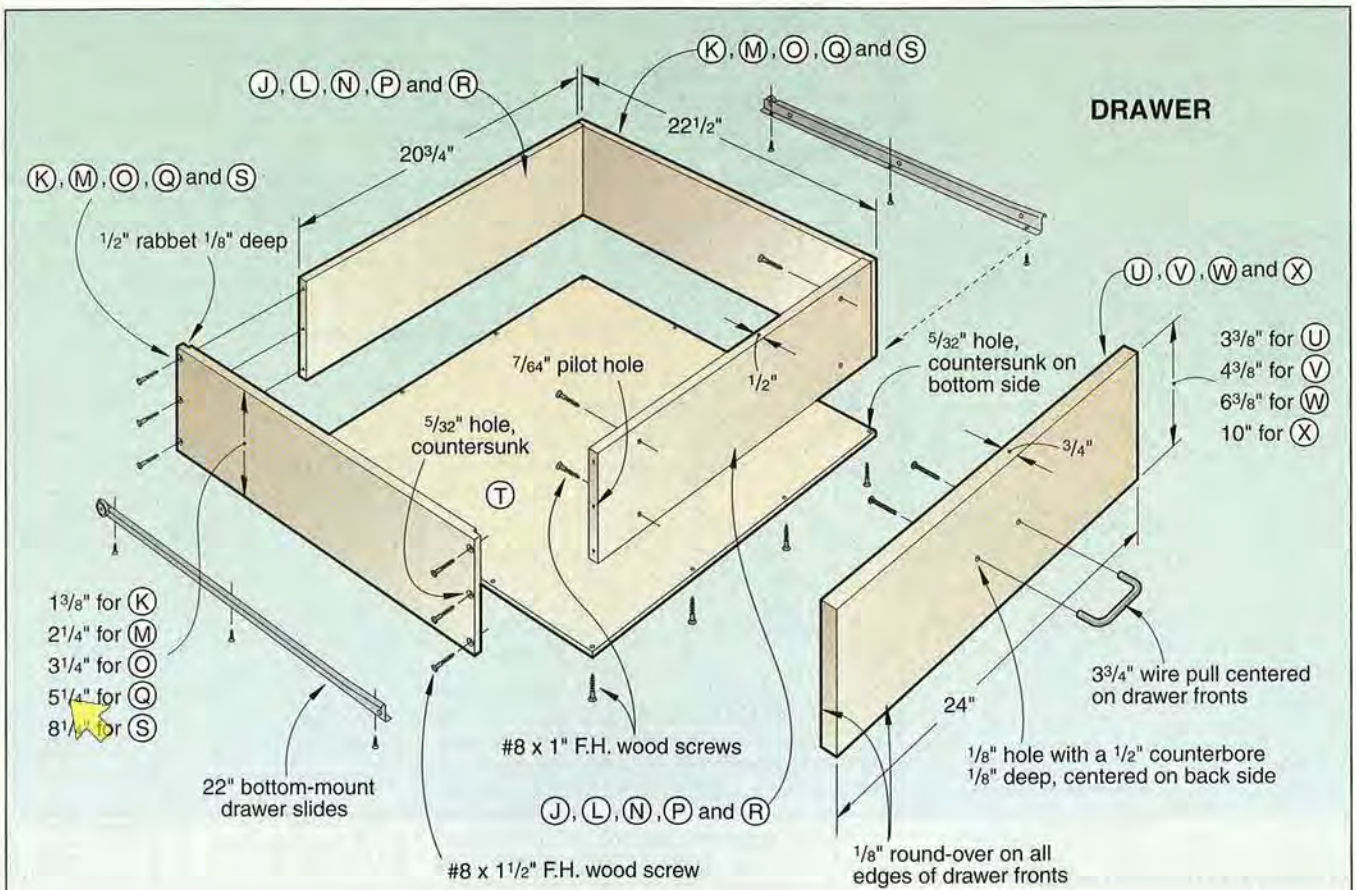
4 Remove the guides from the drawers. Apply a clear finish (we used polyurethane) to the benchtop and drawers. Later, reattach the painted false drawer fronts to the clear-coated drawers. Reattach the drawer guides.

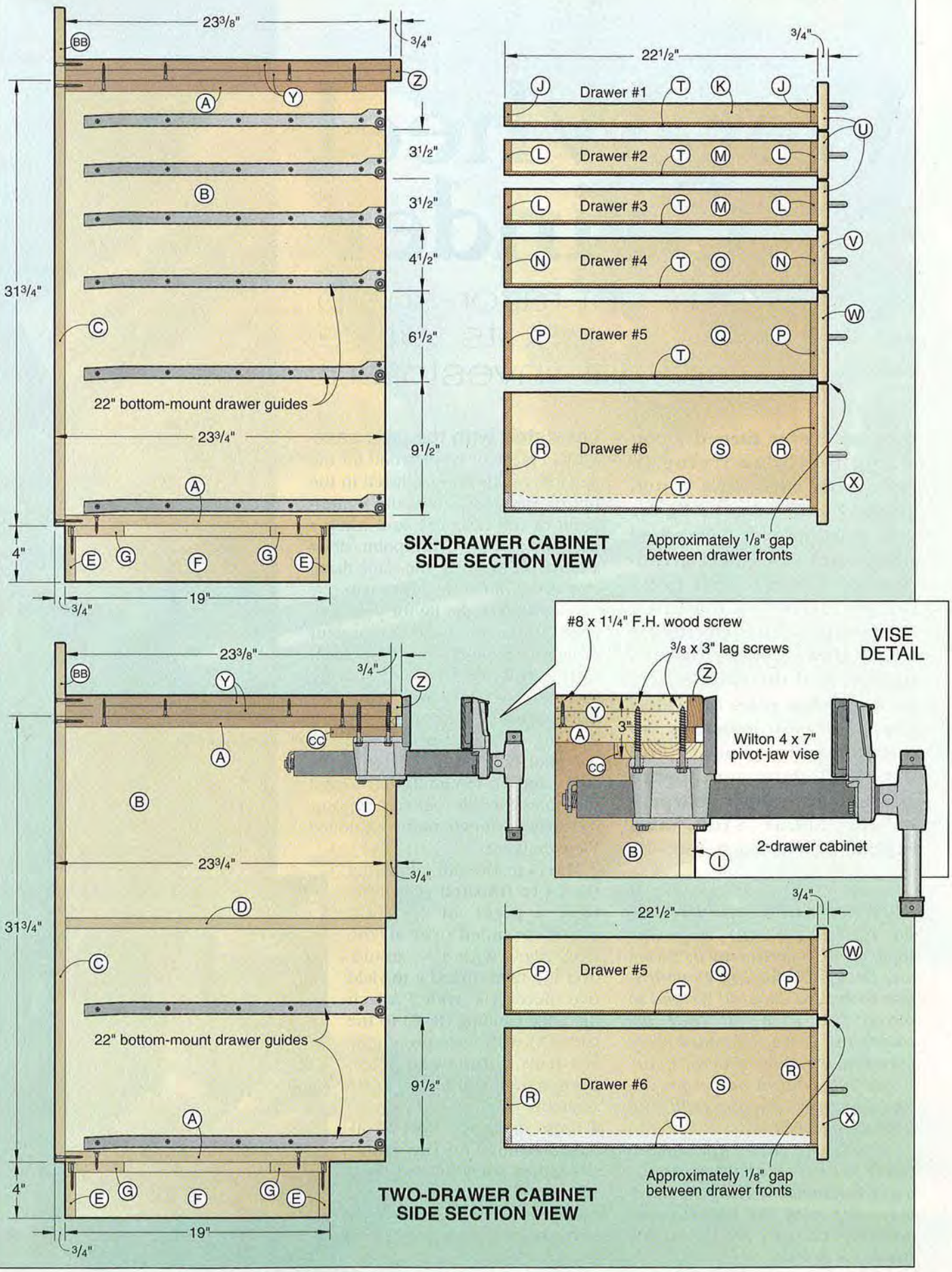
A pivot-jaw vise mounts easily to the bottom side of the benchtop.

Add the vise for plenty of holding power

1 With the aid of a helper, position the end cabinets and laminated top in position in your shop. Working from inside the cabinets, drill mounting holes and secure the laminated top to the top of the cabinets with #8×2" wood screws.

2 See the Buying Guide for the vise we used, or select your own model. Cut the spacer (CC) to size, and attach it to the bottom of part A where shown on the Vise detail on the opposite page. Using the same drawing for reference, drill the mounting holes, and use lag screws to secure the vise to the workbench assembly.

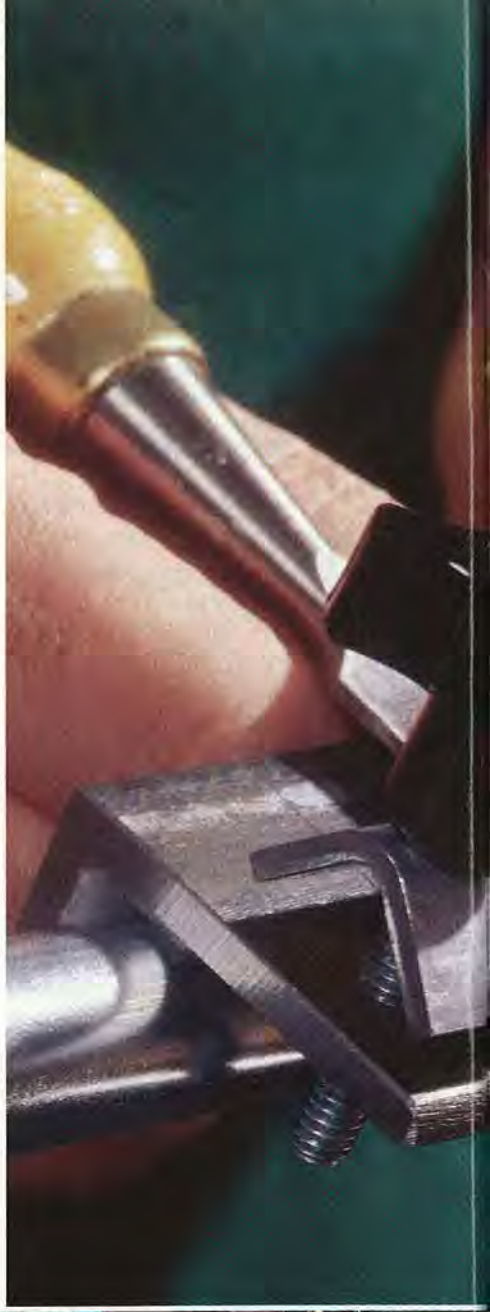




Written by Marlen Kemmet Project Design: Jan Hale Svec Illustrations: Kim Downing; Lorna Johnson Photographs: Bill Hopkins

Build your own Wet-Wheel Grinder

You'll get razor-sharp results with a minimal investment



If you've ever turned a cutting tool blue trying to restore its edge on a bench grinder, have we got a jig for you! Starting with a standard horizontal wet-wheel grinding stone, and a drill press for power, we've modified the stone so it provides a steady flow of water over its surface. And the stone's steel backing plate rides on water-cooled plastic bearings, so the stone runs smooth and flat. We'll show you how to assemble this super sharpener for about $100, and explain how to use it, too.

EDITOR'S NOTE: *After building this jig in the* WOOD® *magazine shop, we discovered why its inventor, Design Editor Jim Downing, was so excited about it. We had so much fun using it that we couldn't stop. We sharpened every chisel in the shop, several plane irons, half-a-dozen pocket knives, and anything else we could find with a cutting edge.*

To make it easier for you to build your own sharpening jig, we've assembled a complete hardware kit with the metal parts drilled and tapped. See the Buying Guide for details.

Let's start with the jig's base

1 Cut a piece of ¾" plywood for the jig table (A) to the size listed in the Bill of Materials. Mark the centerpoint of the table (A), and using a compass and the centerpoint, draw a circle on the table the same diameter as the rim of the water pan.

To customize the jig for your drill press, center the table (A) on your drill-press table. Mark the location of the drill-press table mounting slots, staying ¾" outside the marked diameter of the water pan.

2 Using your drill press, drill the 7/64" pilot hole in the center of the table, and ¼" mounting holes, and the holes for the tool rest support rods where shown on the Exploded View drawing.

3 Miter-cut the edge banding (B, C) to finished size. (We took a piece of ½×3×42" maple, rounded over all the long edges with a ¼" roundover bit, then ripped it to yield two pieces 1¼" wide.) Attach the edge banding (B, C) to the table (A) with waterproof glue and nails, fill the nail holes, then finish-sand the table assembly.

4 Brush or spray a coat of oil-based primer on the entire table, then spray on two coats of enamel. (We used Krylon All-Purpose Gray Primer #1318 and Smoky Gray Spray Enamel #1608.)

Continued

Print this article

COOL RUNNING
Because a stream of water constantly flows across the stone, you'll never burn a tool's cutting edge using this jig.

Wet-Wheel Grinder

Add the water pan assembly

1 Cut the UHMW bearing blocks (D) to size as shown in the Bearing Block detail. Drill and countersink the screw holes where shown.

2 From ½" scrap, cut the positioning block to 3⁵⁄₁₆×3⁵⁄₁₆". Drill a ⁵⁄₃₂" hole through its center.

3 Locate the center of a 1½×9" aluminum cake pan as shown in the photo *below*. Drill a ⁵⁄₃₂" hole through the pan's center.

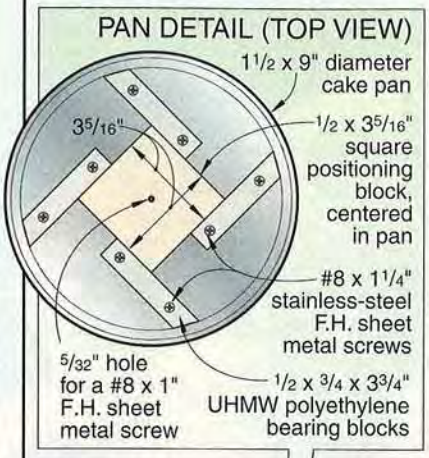
4 Screw the scrapwood positioning block and pan to the center of the table. Position the bearing blocks where shown in the Pan detail drawing, then drill ⁷⁄₆₄" pilot holes through the pan and into the table. Enlarge the pan holes to ⁵⁄₃₂".

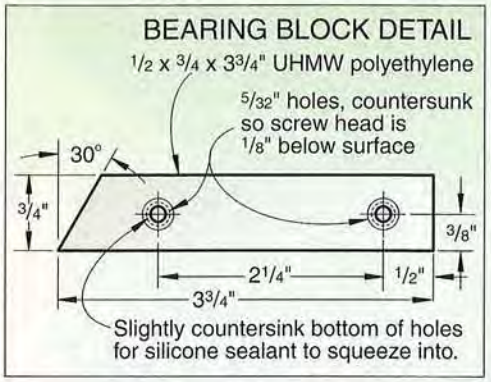
5 Apply silicone sealant to the countersink on the bottom side of the bearing blocks, then fasten the blocks in place with stainless-steel screws as shown. Remove the positioning block, apply silicone sealant to the hole, and install a panhead screw to seal the hole.

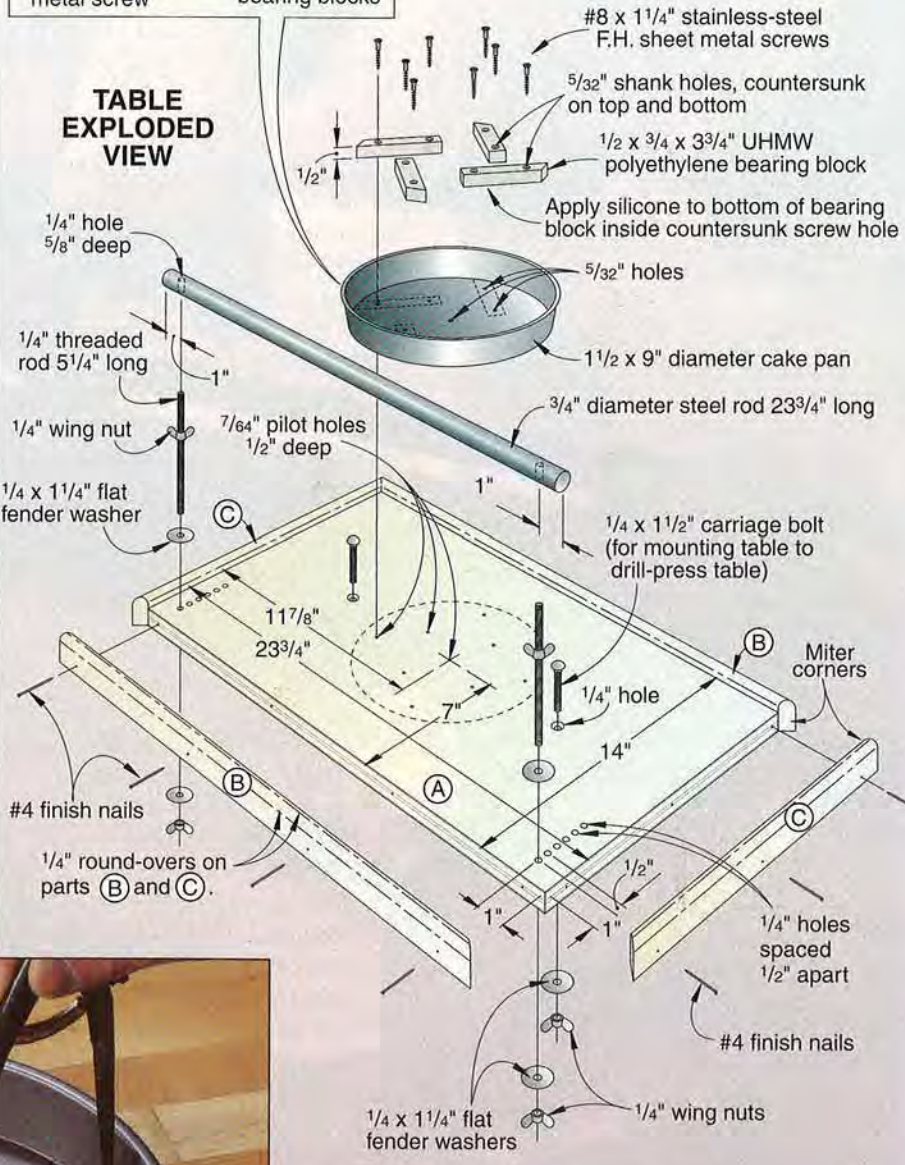
***(Note:** If you purchase the hardware kit, the too lrest and honing guide parts come pre-drilled and tapped. Simply assemble the parts as shown in the Exploded View drawing.)*

Now, machine the tool rest

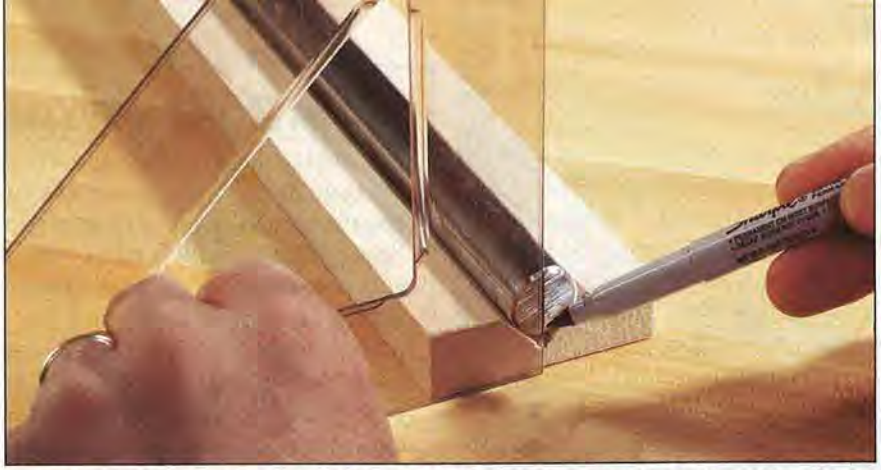
1 Cut a scrap piece of ¾" particleboard to 2½×23¾". Tilt your table-


PAN DETAIL (TOP VIEW)
1½ x 9" diameter cake pan
3⁵⁄₁₆"
½ x 3⁵⁄₁₆" square positioning block, centered in pan
#8 x 1¼" stainless-steel F.H. sheet metal screws
⁵⁄₃₂" hole for a #8 x 1" F.H. sheet metal screw
½ x ¾ x 3¾" UHMW polyethylene bearing blocks

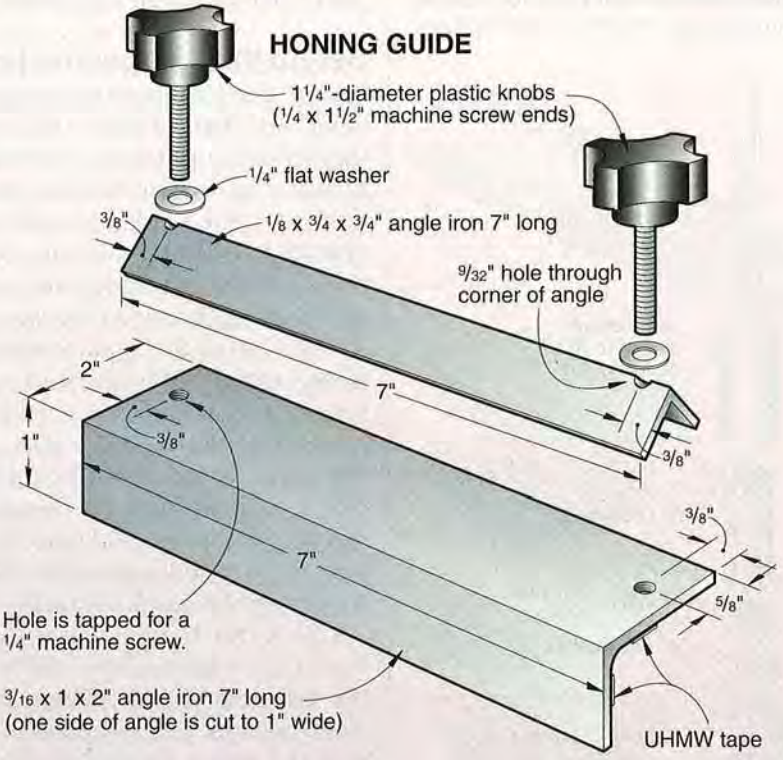




To locate the pan's center, adjust your compass to the radius of the pan's bottom. Place masking tape across the pan's center, and with the point of the compass at the edge of the pan as shown, strike an arc. Move the compass point a third of the way around the pan and strike another arc. Then move it again and strike a third arc. The centerpoint lies at the center of the three intersecting arcs.



With the 3/4" steel rod mounted in the V-block, use a plastic drafting triangle or square to mark the centerline on each end of the rod.



Bill of Materials

Part	Finished Size T	W	L	Matl.	Qty.
A table	3/4"	14"	23 3/4"	P	1
B side banding	1/2"	1 1/4"	24 3/4"	M	2
C end banding	1/2"	1 1/4"	15"	M	2
D bearing blocks	1/2"	3/4"	3 3/4"	U	4

Materials Key: P–plywood, M–maple, U–UHMW polyethylene

Buying Guide

Hardware kit. One piece of 3/16×1×2" angle iron 7" long, drilled and tapped; one piece of 1/8×3/4×3/4" angle iron 7" long, and one 3/4×23 3/4" steel rod with 1/4" holes, one piece of UHMW polyethylene cut slightly oversized for the bearing blocks (D), *plus* all the hardware listed in the Supplies listing *below* except for the grinding wheel and finish. WOOD KIT GJ1, $52.95 ppd. Add $56.95 ppd. per wheel for MK-60 (60-grit Makita wheel) or MK-1000 (1000-grit Makita wheel). Schlabaugh and Sons Woodworking, 720 14th Street, Kalona, IA 52247 or call 800/346-9663 to order.

Supplies: #4 finish nails, 3/4×23 3/4" steel rod, 3/16×2×7" angle iron, 1/8×3/4×7" angle iron, 2–1/4" carriage bolts 1 1/2" long, 2–1/4" all-thread rods 5 1/4" long, 6–1/4×1 1/4" fender washers, 6–1/4" wing nuts, 8–#8×1 1/4" stainless-steel sheet-metal screws, 1–#8×1/2" stainless-steel panhead sheet-metal screw, 1–1/2" carriage bolt 2 1/2" long, 2–5/8" flat washers, 1–1/2" flat washer, 2–1/4" flat washers, 1–1/2" nut, 1–1/2" coupling nut, 1–3/8"-drive 1 1/16" deepwell socket, 1–1/4×3/8" socket adapter, galvanized sheet metal (approx. 3×3"), 1–7/64" self-tapping screw 3/8" long, 2–1 1/4"-diameter plastic knobs with 1/4" machine screw studs 1 1/2" long, 1/2×14" UHMW polyethylene self-adhesive tape, 4–1/2×3/4×3 3/4 UHMW polyethylene blocks, 1–1 1/2×9"-diameter aluminum cake pan, 1–200×25×75mm Makita grinding wheel (60- or 1000-grit), silicone sealant, enamel finish and primer.

saw blade to 45°, adjust the depth to 1/2", and set the fence so the tip of the blade rips through the center of the stock. Make one pass, rotate the stock 180°, and make a second pass to form a V-shaped notch centered on the board.

2 Cut a 3/4"-diameter steel rod to 23 3/4" long, then smooth and chamfer the ends with a file or grinder.

3 Apply cloth-backed double-faced tape lengthwise near each end of the rod to keep it from rotating, then place the rod in the V-block. Use a plastic triangle or square to mark a vertical line centered on each end of the rod as shown in the photo *above left*. Extend the mark along the top of the rod.

4 With a metal punch, mark the centerpoint of the holes, where shown, then drill the holes. Remove the rod from the V-block, and set the V-block aside.

5 Cut the 1/4"-diameter all-thread support rods to 5 1/4" long, and file a slight chamfer on the ends. Assemble the tool rest as shown in the Exploded View drawing.

The honing guide comes next

1 Use a hacksaw, reciprocating saw, or jigsaw with a metal-cutting blade to cut the 3/16×2" angle iron to 7", then cut one side of the 2" angle to 1" wide. File or grind all the cut edges smooth, and drill and tap the holes where shown in the Honing Guide drawing.

2 Cut the 1/8×3/4" angle iron to 7", and place it angle-side-down in the V-block you used previously. Drill a pair of 1/8" pilot holes 3/8" in from each end. Switch to a 9/32" bit, and drill the holes to finished size.

3 Clean the underside of the larger angle with solvent. Apply two strips of UHMW tape to the angle where shown.

4 Using a square and a scratch awl, scribe tool alignment marks at 1/2" intervals across the top face of the 1×2" angle, then assemble the honing guide.

Continued

Wet-Wheel Grinder

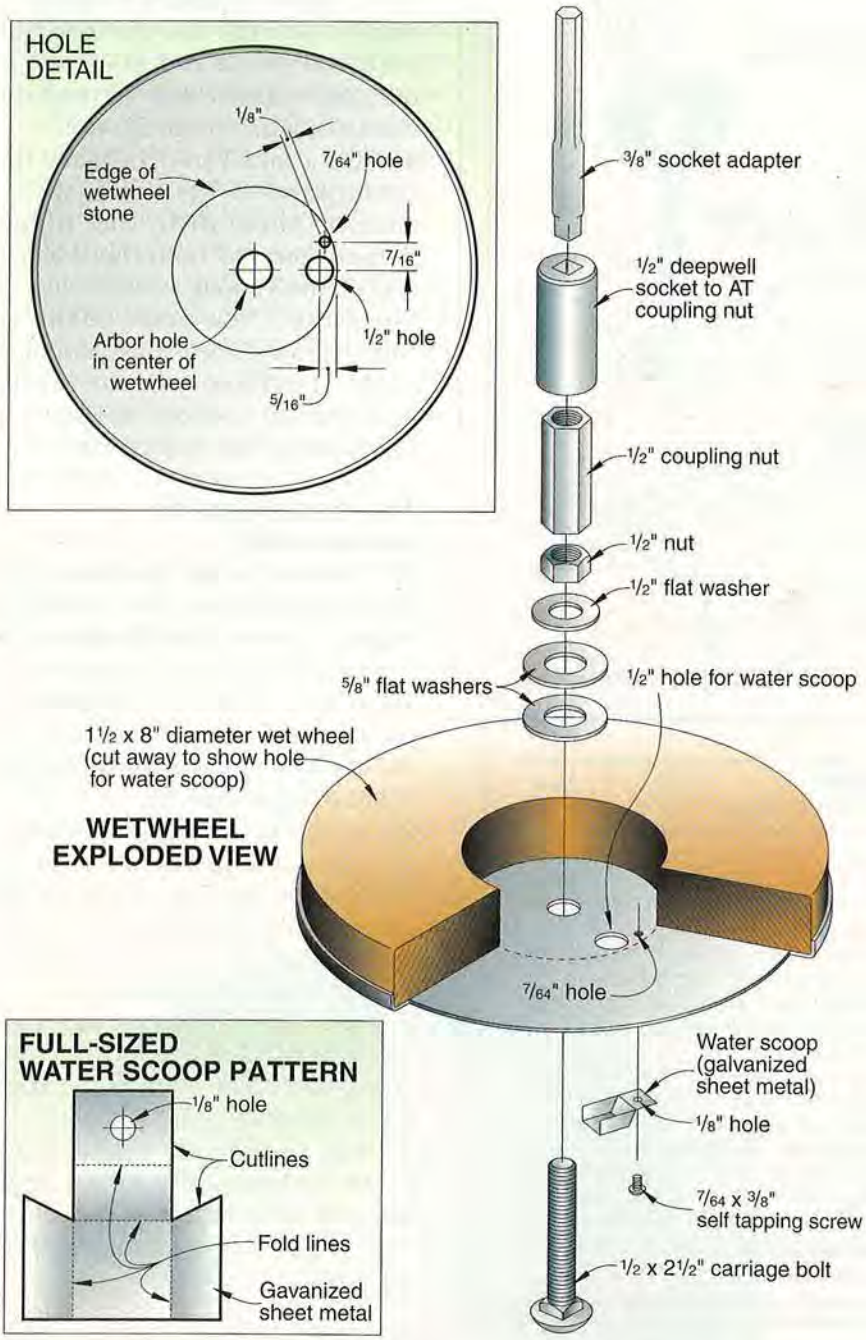
Finish up with the wet wheel

*(**Note:** We looked at several different wet-wheel grinding stones before settling on Makita 60- and 1000-grit wheels. While more expensive than most, these stones have a harder, more durable composition, and are mounted on a heavy steel backing plate.)*

1 Mark out and drill the two off-center holes in the wet-wheel backing plate where shown on the Hole detail *below*.

2 Copy the full-sized pattern for the water scoop, and affix it to a piece of galvanized sheet metal. Drill the ⅛" mounting hole, then cut the water scoop to size.

3 Cut the end of a piece of ½"-thick scrap at 30° and use it as a form to help bend the scoop to shape. Attach the scoop to the wet wheel, as shown in the Wet Wheel Exploded View drawing, aligning it over the ½" hole. Assemble the ½" carriage bolt, washers, and nuts as shown *below*.



How To Use Your

Now that you've completed the jig, it's time to put a keen edge on your chisels, plane irons, and other cutting tools. But which wheel should you use, 60- or 1000-grit? You may want to consider buying both.

We found that for general purpose sharpening, the 60-grit wheel gave us a sharp edge quickly, making it ideal for regrinding nicked or damaged edges. For honing a fine edge on knives and carving tools, you'll need the 1000-grit wheel.

Set up the sharpening jig

Install the jig on your drill-press table, but don't tighten the mounting screws. Center the wet wheel in the pan, and install the socket adapter and socket in the drill chuck. Raise the table and center the coupling nut under the socket, leaving a gap between the two.

Now, lower the quill so the coupling nut fits inside the socket, and reposition the jig so the wheel remains centered in the pan. Lock the quill and drill-press table in place, and tighten the mounting screws. To change wet wheels, simply raise the quill, swap the wheels, then lower and lock the quill.

Add water to the pan until the level reaches just above the top of the bearing blocks. (Because the stone absorbs water, we like to presoak the wheel for 10-15 minutes.) Adjust your drill-press speed to the slowest setting—usually 250 rpm—then turn it on. The wheel should turn fast enough to pump water up from the center of the wheel and out over the stone without throwing water out of the pan. You may need to add or remove water, or adjust the drill-press speed to achieve the proper flow.

Let's sharpen a chisel

Before you put a fine edge on a chisel, you need to lap the back side to remove factory grind marks and flatten the surface. The photos *above right* show how to lap a chisel and the results you want.

Wet-Wheel Grinder

With the chisel lapped, insert it into the honing guide, and align the edge with one of the scribed lines. Tighten the knobs to hold the chisel firmly in position.

Set the honing guide and chisel in place on the tool rest as shown in the Fine-tuning the Tool rest drawing. Raise or lower the toolrest to achieve the proper edge bevel as shown. To make sure the tool rest stays parallel to the table, we measure the height at both ends, using a combination square.

With the tool rest adjusted and the honing guide removed, turn on the drill press. Place the honing guide on the tool rest and gently lower the chisel blade onto the rotating stone. Start with the chisel near the center of the stone, then move it back and forth toward the edge of the wheel as shown in the Grinding Motion drawing at *right, bottom*.

After grinding the entire bevel, carefully remove the chisel from the honing guide and wipe it dry. It will have a fine burr left from the grinding that must be removed. Simply run the cutting edge lightly across the end-grain edge of a piece of hardwood to leave a chisel that's ready for action.

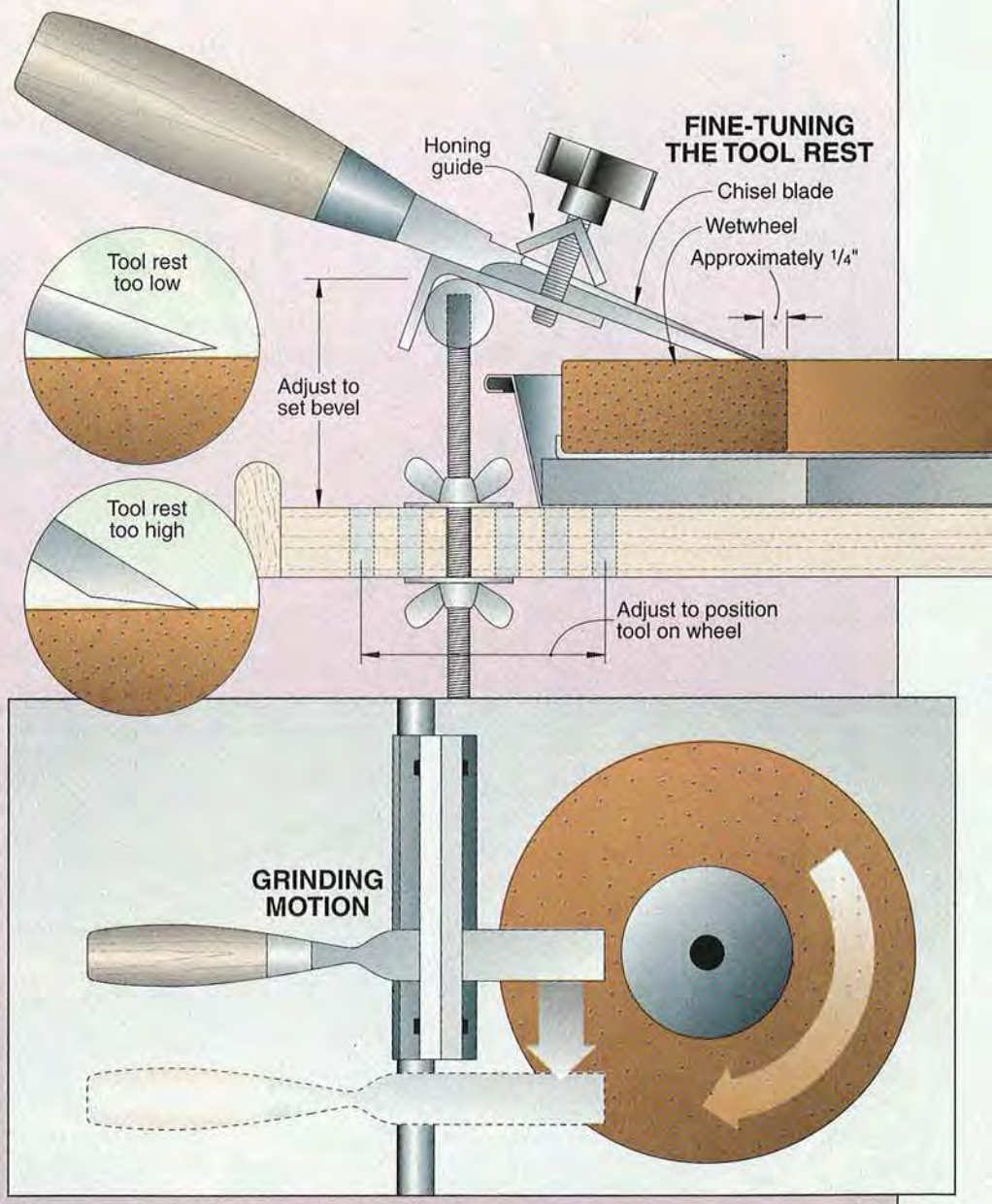
Don't forget maintenance

Since you're introducing water into your shop, take extra time to wipe up spills and drips around your drill press. To help prevent rust, wipe down the bare metal part of your drill press with WD-40 or light machine oil each time before you use the jig.

If your grinding wheel becomes even slightly grooved, you need to flatten it. Begin by removing the drive bolt assembly from the wheel. Affix a piece of 320-grit wet-and-dry silicon carbide sandpaper on a piece of glass with spray adhesive. Dampen the sandpaper with water, then rub the stone side of the wheel back and forth on the sandpaper. Rinse the sandpaper and wheel with water periodically.

To lap a chisel, place the back side on the wet wheel with the wheel spinning away from the cutting edge as shown.

You must lap the back side of chisels to remove factory grind marks, corrosion, and protective coatings. After lapping, the back side of the chisel should appear shiny and scratch-free.



Project Design: James R. Downing
Graphic Design: Perry McFarlin
Photographs: Hetherington Studios
Illustrations: Kim Downing

Picture-Pretty CHIP CARVING

Traditional techniques yield decorative images

Leave it to Wayne Barton to put a new spin on the old art of chip carving. Wayne, master of traditional Swiss-style chip carving, has brought a novel look to his art with *positive imaging*, illustrated by the plate *left*. Here's how to carve a plate for yourself.

Traditional chip carving calls for slicing geometric segments out of the surface of a piece of wood, resulting in an incised pattern. Sometimes, a combination of cuts creates a design feature that appears to be relief-carved, as with a rosette.

Positive imaging enlarges on that, focusing on the relief images, not the incised lines and triangles, as the major design elements. For positive imaging, you cut out chips solely to remove the background around the design. This means the chips may be free-form pieces rather than the more geometric forms of traditional chip carving.

Though the chips may differ, you cut them the same way as in traditional Swiss-style chip carving. So, before digging into the positive-image plate, let's dip into some chip-carving basics. If you're already handy at chip carving, you can excuse yourself and rejoin us at "Applying the pattern" on *page 70*.

These knives are the only tools you need to carve the three basic chips.

Two knives will do it all

Wayne's Swiss-style chip carving calls for only two knives, shown *above right*. The cutting knife is the principal tool—you'll carve all of the chips with it; the stab knife comes into play only to make decorative impressions. (The Buying Guide shows our source for the Premier chip-carving knives shown.)

Your chip-carving success and enjoyment depend on having sharp knives. For sharpening, Wayne prefers flat ceramic stones—a medium-grade stone for shaping the edge and an ultrafine one for honing it. He prefers the ceramic stones because of their hardness—they resist surface dishing.

Sharpen the cutting knife to an angle of 10° or less. To gauge the sharpening angle easily, lay the blade flat on the stone, then lift the back edge just enough to slip a dime under it. The cutting edge must extend straight to the point of the blade to make clean cuts. Sharpen the stab knife to the factory angle, 30°.

Continued

CHIP CARVING

Tips on holding the knives

For carving, you'll hold the cutting knife one of two ways.

First grip position. To begin, sit down in a chair without arms, and hold the workpiece on your lap. Grasp the knife in your right hand (or left, if you're left-handed). Place the first joint of your thumb at the blade end of the handle, and wrap your fingers around the handle as shown *below*. Then, turn the inside of your wrist toward your body and rest the tip of your thumb, the knuckle of your index finger, and the point of the blade on the workpiece.

This lays the blade away from you at about 65° to the wood. Viewed from the side, an imaginary line bisecting the angle formed by the point of the knife should stand perpendicular to the workpiece.

Move your hand and the knife as a unit; that is, don't flex your hand to draw the knife toward your thumb. Maintain a constant angle between the blade and the work.

Second grip position. Tilt the top edge of the knife toward you, and place your thumb along the back of the blade. Rest your index-finger knuckle on the carving to maintain a 65° tilt of the blade, shown *bottom left*.

The stab knife. Grip this knife as you would an ice pick. Hold it perpendicular to the workpiece with the long point away from you, and stab it straight into the wood. Then, rock the handle toward you to extend a line out from the knife-tip impression.

You'll hold the knife this way for most cutting. Keeping the end of the thumb and the index-finger knuckle on the workpiece maintains the proper angle.

For some relief cuts, you'll hold the knife in this position.

Carving the chips

Swiss-style chip carving relies on three basic cuts—the straight chip, the curved chip, and the triangular chip. Knowing how to carve these basic chips will help you carve the positive-image chips.

Straight chip

To carve the straight chip (intersecting ones shown *left*), start with the cutting knife in the first position. Slice along the pattern line in one direction. Then, turn the workpiece 180° and cut in the other direction to release the chip.

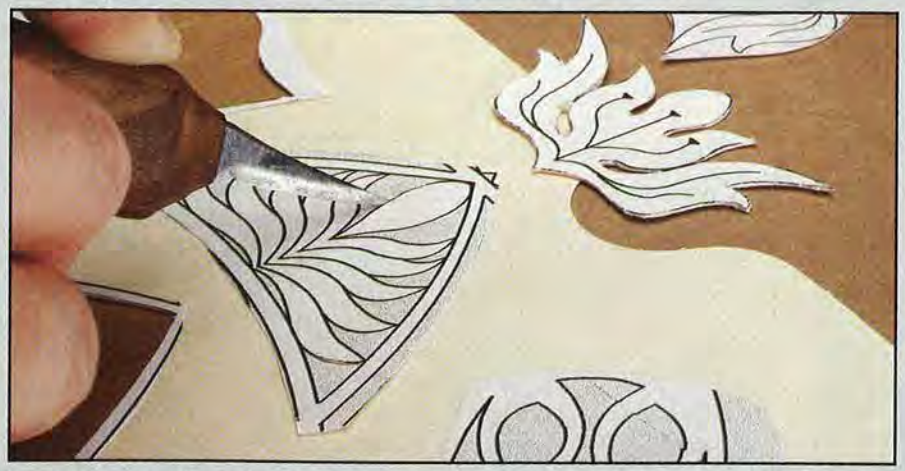
When one pattern line represents a chip, cut along it in one direction, then make the relieving cut. Where two lines mark a chip, cut along each, plunging the knife in deeply enough that the cuts meet midway between the lines.

Applying the pattern

Make two photocopies of the full-sized pattern. You'll find it in the *WOOD PATTERNS*® insert in the middle of the magazine.

Cut one pattern copy into two parts—the plate center and the rim. Also, trim the rim pattern around the scalloped outside edge for ease in positioning it on the plate. Slip a piece of graphite transfer paper (not carbon paper) between the pattern and the plate, and tape the pattern at a few spots.

Templates aid in tracing the pattern onto the plate accurately. To make a set, cut from the second copy of the pattern two of each of the repeating elements, such as the shield shape with floral design around the rim. Allow a margin around each piece. Then, with spray adhesive or rubber cement,



Cut tracing templates from pattern segments glued onto cardstock. You'll need templates of both the inside and outside pattern lines for each segment.

Curved chip
Carve a curved chip (two shown *left*) as you would a straight one, except raise the end of the knife handle slightly. This reduces the length of the blade in the wood, making it easier to follow a curved line. The tighter the radius, the more you need to raise the handle to negotiate the curve.

Because the angle between the workpiece and the knife remains constant, straight and curved chips of the same width will be the same depth. Wider chips will be deeper, and narrower ones shallower.

Similarly, chips having nonparallel sides will be shallower where the sides are closer together, deeper where they diverge. When carving such chips (the swirling shapes in the center rosette, for instance), push the knife in more deeply as you approach wide spots, and withdraw it as you work toward narrower areas.

Triangular chip
Triangular chips make up the four corners of the figure *left*. Holding the knife in the first position, cut from the far end of the first side toward yourself. Turn the workpiece about 90°, and switch to the second grip to cut the second side. Then, without turning the workpiece, go back to the first grip to complete the final cut. Plunge the knife to the full depth of the chip at the start of each side, and gradually reduce the cutting depth as you near the end.

adhere the cutouts to light cardstock. (We made our templates from an old file folder.)

Using a sharp knife, trim around the outside pattern line of one copy of each element. On the second copy, cut out a template for the inside part, shown *below left*.

Then, to transfer the pattern onto the plate, lay the template for an element on top of the corresponding shape on the pattern. Trace around it with a soft-lead pencil, as shown *below*. Trace other pattern features, employing French curves or a flexible ruler for accuracy.

After tracing the rim pattern, remove the paper pattern and transfer paper. Then, carve the rim. After carving the rim, trace the pattern for the center onto the plate, and carve it.

Position your template on the appropriate part of the pattern for accurate tracing.

Carving the plate

In general, start from the outside and work inward when carving the plate. Dividing the plate into quarters and working within one quarter at a time is another way to organize the work.

Here are some other chip-carving tips from Wayne:

- Start with the largest chips in the area you're working.
- Begin carving a chip with the cut across the grain.
- Avoid cutting toward work you've already done when starting a new chip.
- Look ahead of the blade—where you're going—as you carve; this makes it easier to follow a line.
- In case of a splinter or tearout, apply a dab of wood glue to the piece with a toothpick, then press it back into place.

When you've completed the carving, erase any remaining pencil marks. An ink eraser usually does the trick. Then, sand the plate lightly with 220-grit sandpaper. Be careful not to flatten or round over the sharp edges that give the carving its crisp look.

Blow the sanding dust out of the cuts. Stain the plate, if you wish. Spray on a coat of dull (flat) polyurethane. Build the finish with a couple of thin coats, but don't apply the finish so heavily that it fills in the carving detail.

Buying Guide

Plate, carving knives, and supplies. Scalloped-edge basswood plate, $13.75; set of two Premier chip-carving knives, $49.90; set of ceramic sharpening stones, $48, all plus shipping. Books and videos also available; call for prices.

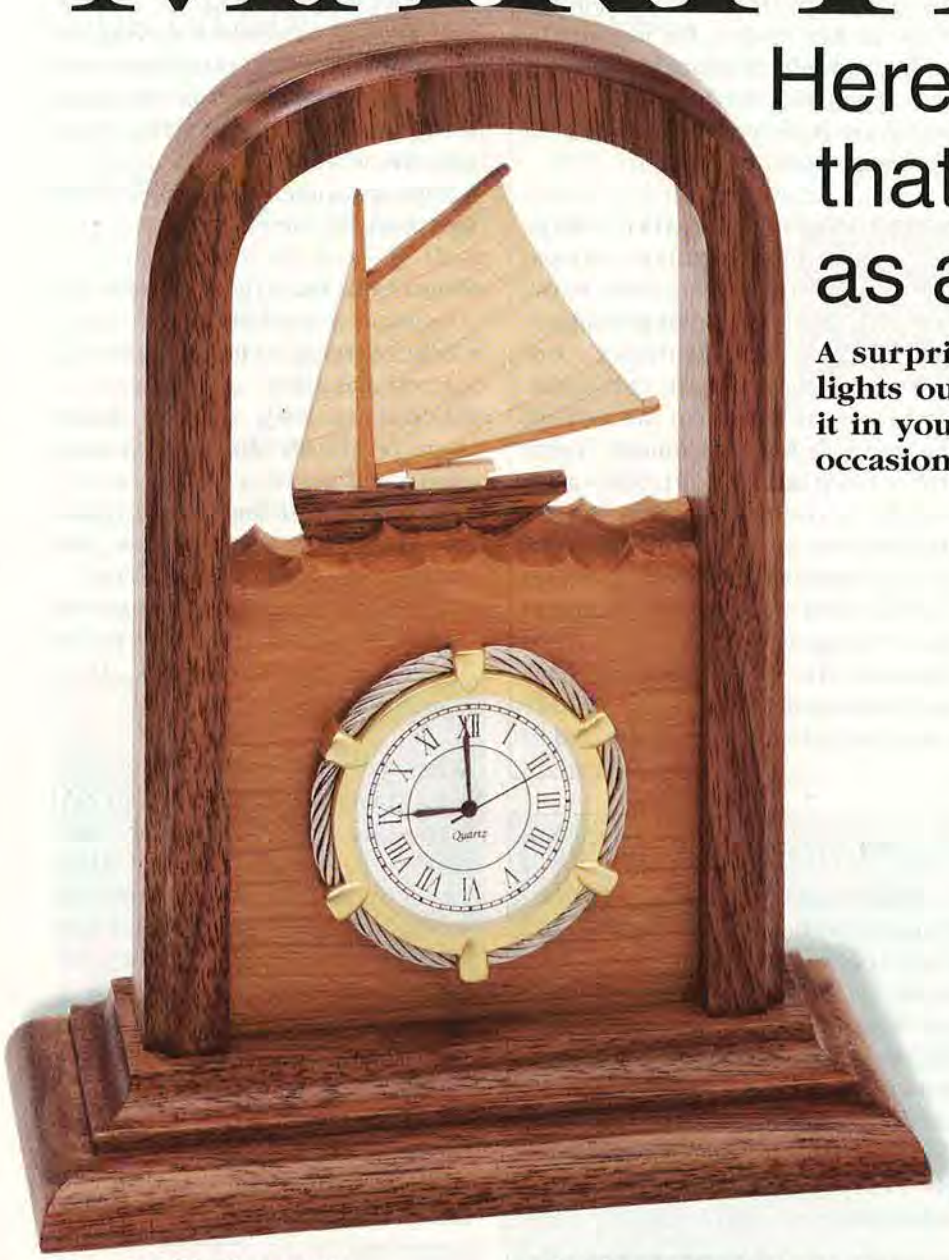
Alpine School of Woodcarving Ltd.,
225 Vine Ave.,
Park Ridge, IL 60068.
Or call 847/692-2822.

Project Design: Wayne Barton
Photographs: King Au; Wm. Hopkins
Illustrations: Roxanne LeMoine; Lorna Johnson

MARITIME

Here's a clock that's as cool as a sea breeze

A surprisingly detailed sailboat highlights our nifty nautical clock. Anchor it in your den or office, and enjoy the occasional daydream cruise.



Start with the arch

1 Photocopy the Full-Sized Half Pattern for the arch (A) on *page 74*. Make a full pattern, and adhere it to 1"-thick stock with spray adhesive or rubber cement.

2 Bandsaw the arch slightly outside the line. Sand to the line, keeping the sides straight and parallel. Remove the pattern.

3 Chuck a piloted ⅛" cove bit in your table-mounted router. Refer to the Cove Detail illustration, and rout the outside edge on both sides of the arch. Finish-sand.

The base comes next

1 Cut the base (B) to the size shown in the Bill of Materials.

2 Chuck a ½" core box bit in your table-mounted router. Referring to *step 1* of the Routing Detail illustration on the *opposite page*, set the router cutting depth and position the table's fence. A solid fence works better than a split fence for this job. To reduce corner chipout, rout first across the ends, then rout the edges.

3 Change to a piloted round-over bit. Set the fence and cutting depth as shown in *step 2* of the illustration, and rout the edge. Finish-sand the base.

Now, add water

1 Cut blanks for parts C, D, and E to the sizes shown.

2 Adhere the part C pattern to its blank. With a 1⅜" Forstner bit, bore the clock hole where shown. Scrollsaw the top edge, and leave the pattern attached.

3 Using double-faced tape, attach the part E blank to the front face of the part D blank. Place the part E blank where shown by the shaded area on the parts D/E pattern.

4 Adhere the parts D/E pattern to the stacked blanks. Align the bottoms of the pattern and blank D.

5 Scrollsaw the waves and the boat hull, as shown in the photo *right*. Remove the pattern from part D. Separate the boat hull (E) from the piece behind it, but leave the pattern in place.

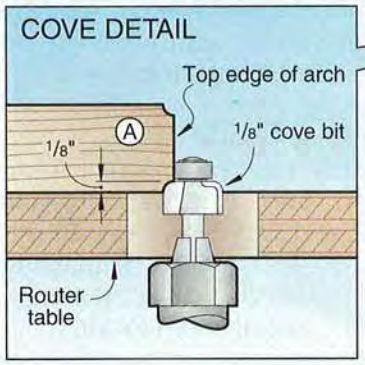
6 Refer to the Exploded View drawing, then glue parts C and D together, aligning the bottoms and sides of both parts.

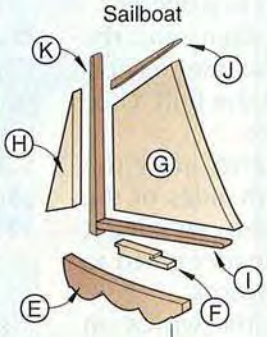
7 After the glue dries, trim the sides (indicated by the broken lines on the pattern) so the C/D assembly will fit inside the arch. An easy way to do this is to lay the assembly on your bench, with the arch lying on top of it. Align the bottoms, center the clock hole

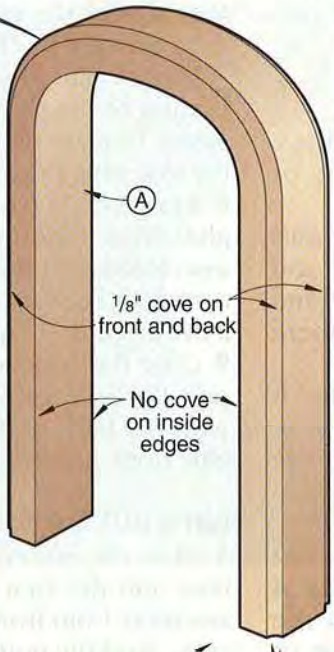
Continued

Print this article

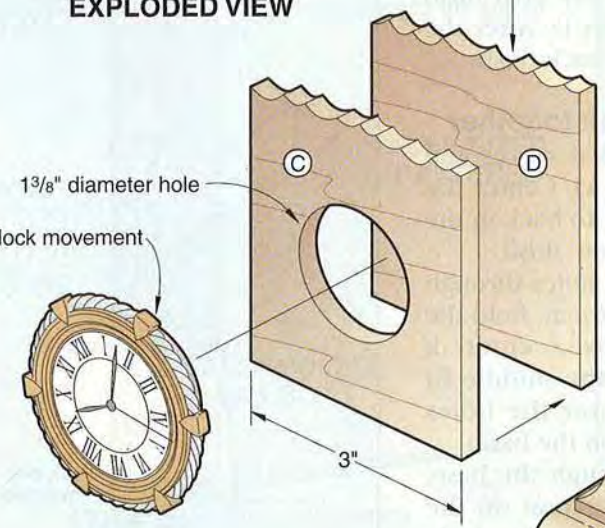
TIMEPIECE

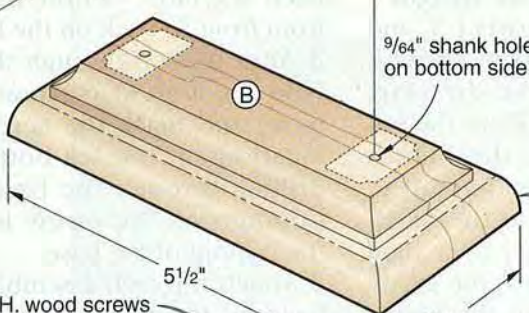






EXPLODED VIEW





#6 x 1 1/2" F.H. wood screws

Stack-cutting the waves on part D and the boat hull (E) ensures that the parts fit together tightly.

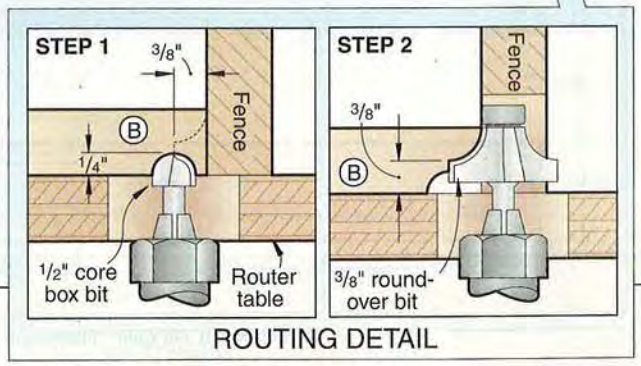
Bill of Materials

Part	Blank Size T	W	L	Matl.	Qty.
A arch	1"	4"	6⅛"	W	1
B* base	¾"	2½"	5½"	W	1
C front	¼"	3½"	3¼"	C	1
D back	¼"	3½"	3¼"	C	1
E hull	⅛"	¾"	3¼"	W	1
F, G, H** sails, cabin	⅛"	2⅛"	2½"	M	1
I, J, K** mast, spars	⅛"	⅜"	7"	C	1

*Finished size **Cut the small parts from one blank in accordance with how-to instructions.

Materials Key: C–cherry, M–maple, W–walnut

Supplies: Clock insert (see Buying Guide), #6×1½" flathead wood screws, woodworker's glue, finish.



ROUTING DETAIL

MARITIME TIMEPIECE

between the arch legs, and scribe the cutting line with a knife. Make the cuts, remove the pattern, and finish-sand.

Time to build the boat

1 Equip your scrollsaw with a zero-clearance table overlay or blade-slot insert.

2 Cut the maple blank for the sails and cabin (parts F, G, and H) and the cherry one for the mast and spars (parts I, J, and K). Adhere the patterns to the blanks.

3 Scrollsaw the cabin (F). Glue it to the hull (E) where shown on the hull pattern. (We glued the parts together, laying them on a piece of waxed paper.)

4 On the Assembled Sailboat drawing, note that three edges of the mainsail (G) mate with the mast and spars and one edge of the jib (H) glues to the mast. Scrollsaw both sails, staying slightly outside the line along each mating edge. Sand to the lines, ensuring the mating edges are straight.

5 Cut the blank for parts I, J, and K into sections where shown. Again referring to the drawing, glue the mast blank (K) to the sail (G). Similarly, glue the blanks with the spar patterns (I and J) to the mainsail. To glue the small parts, lay waxed paper over rigid foam (insulation board, for example), and stake around the pieces with straight pins.

6 After the glue sets, scrollsaw the mast and spars, shown *right*. Sand the edge of the mast (K) straight, then glue the jib (H) in place.

7 Let the glue dry, then sand the bottom of the jib and mast as necessary to mate with the hull. Glue the assembly in place.

8 Remove all patterns after the glue dries. Sand both sides of the assembled boat flush by rubbing it across 150-grit sandpaper glued to a flat piece of scrapwood.

9 Glue the boat to the waves on part D, the back of the boat flush with the back of part D. After the glue dries, sand the back flush.

Let's put the parts together

1 Glue the assembled waves and boat into the arch (A). Center the assembly from front to back in the arch. Sand the bottom flush.

2 Lay out the screw holes through the base. To locate them, hold the arch legs to the base, centered, then mark where the middle of each leg falls. Center the holes from front to back on the base.

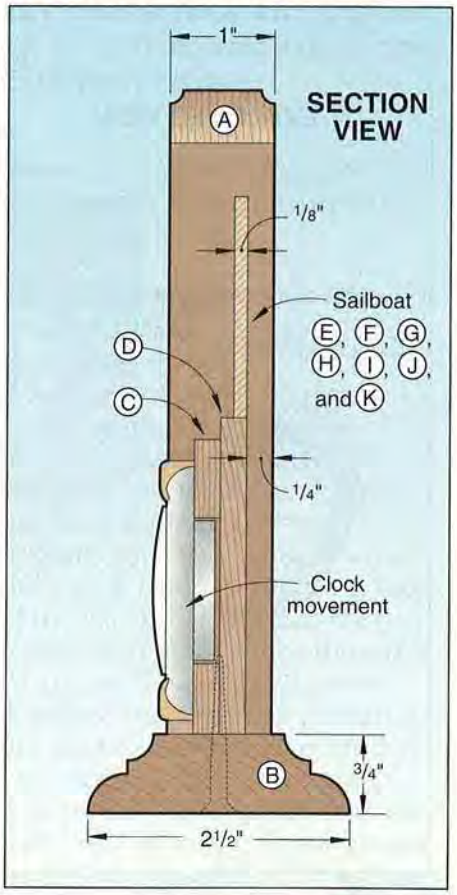
3 After drilling through the base, hold the arch in position on the base, and mark the screw hole locations in the leg bottoms by drilling through the base holes. Countersink the screw holes on the bottom of the base.

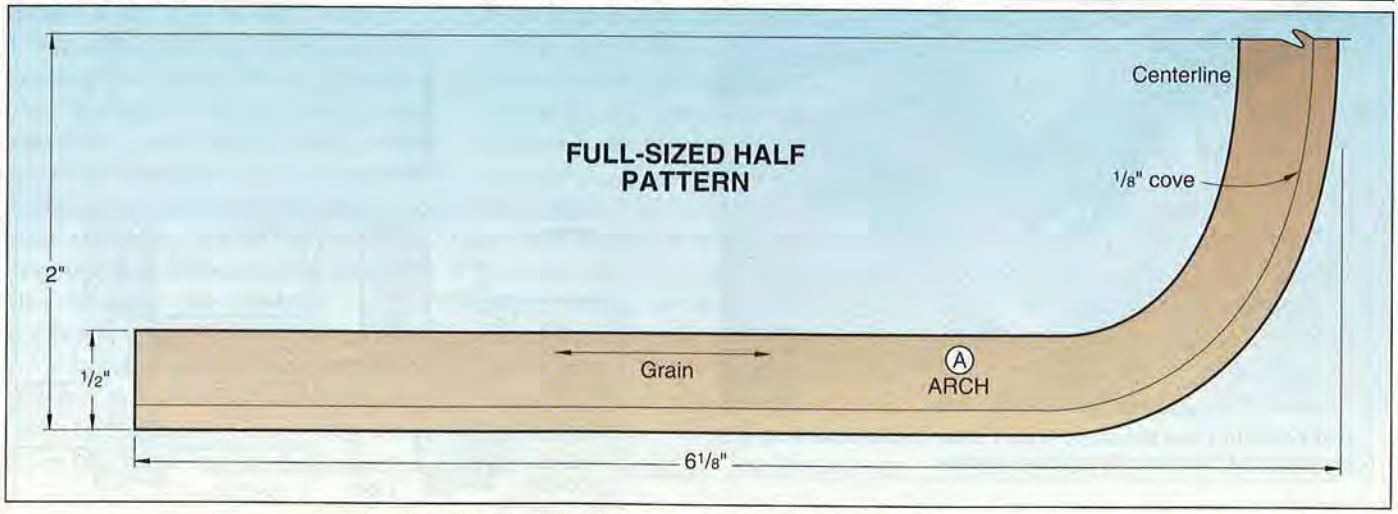
4 Attach the arch assembly to the base with two #6×1½" flathead wood screws.

5 Spray on two coats of semigloss clear finish, sanding between coats. Install the clock insert.

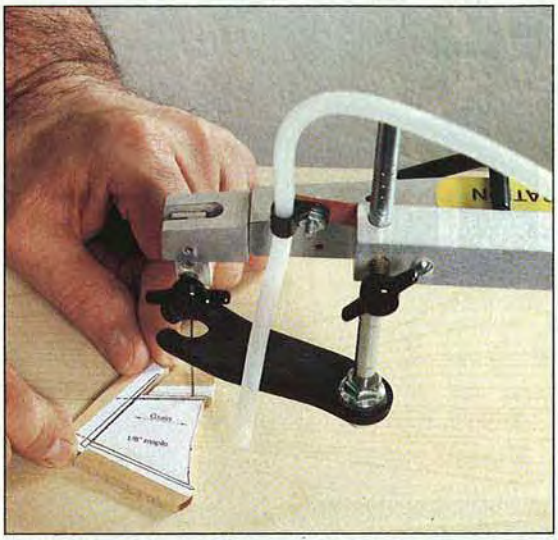
Buying Guide

Clock insert. Quartz clock insert, brass trimmed with stainless steel cable, item no. 200117, $20.90 ppd. in U.S. Schlabaugh and Sons, 720 14th St., Kalona, IA 52247, or call 800/346-9663.

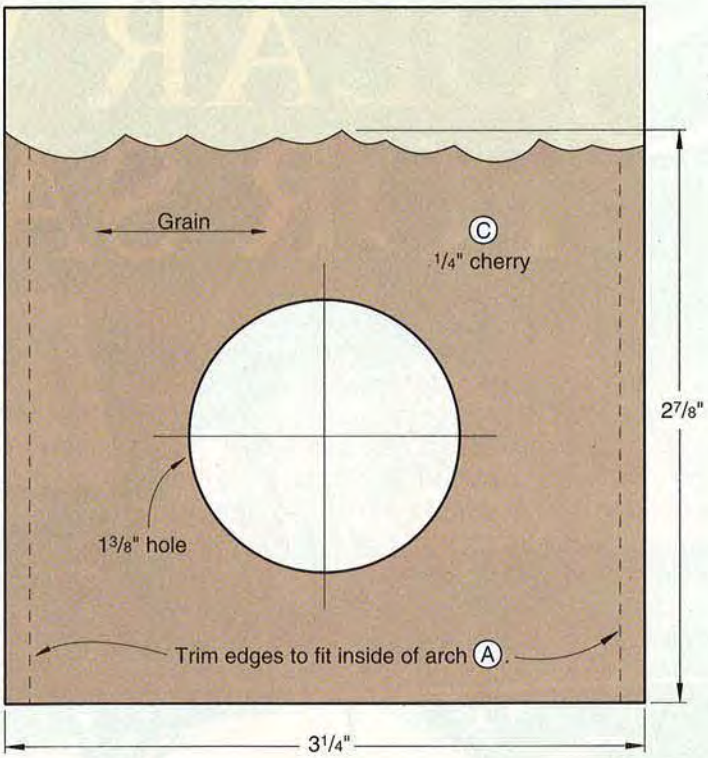


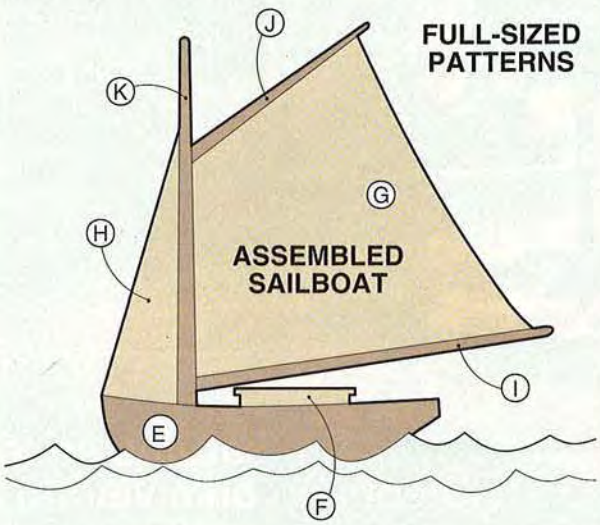


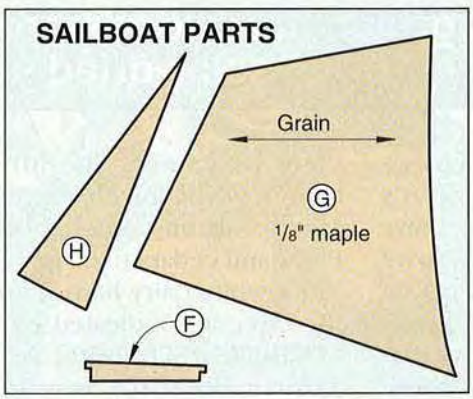
Project Design: Bill Zaun Illustrations: Kim Downing; Lorna Johnson Photographs: Hetherington Photography; Marty Baldwin

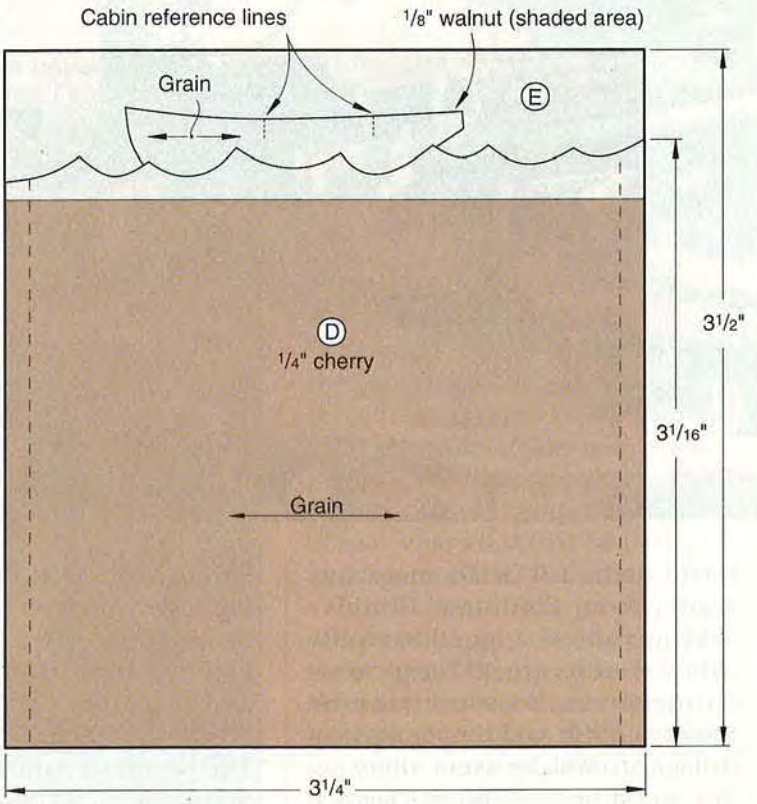


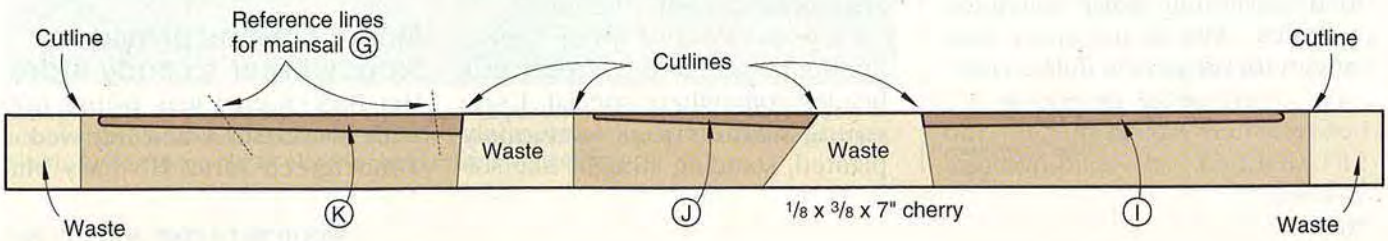
Glue the blanks for the mast and spars to the sail to saw the small parts easily.



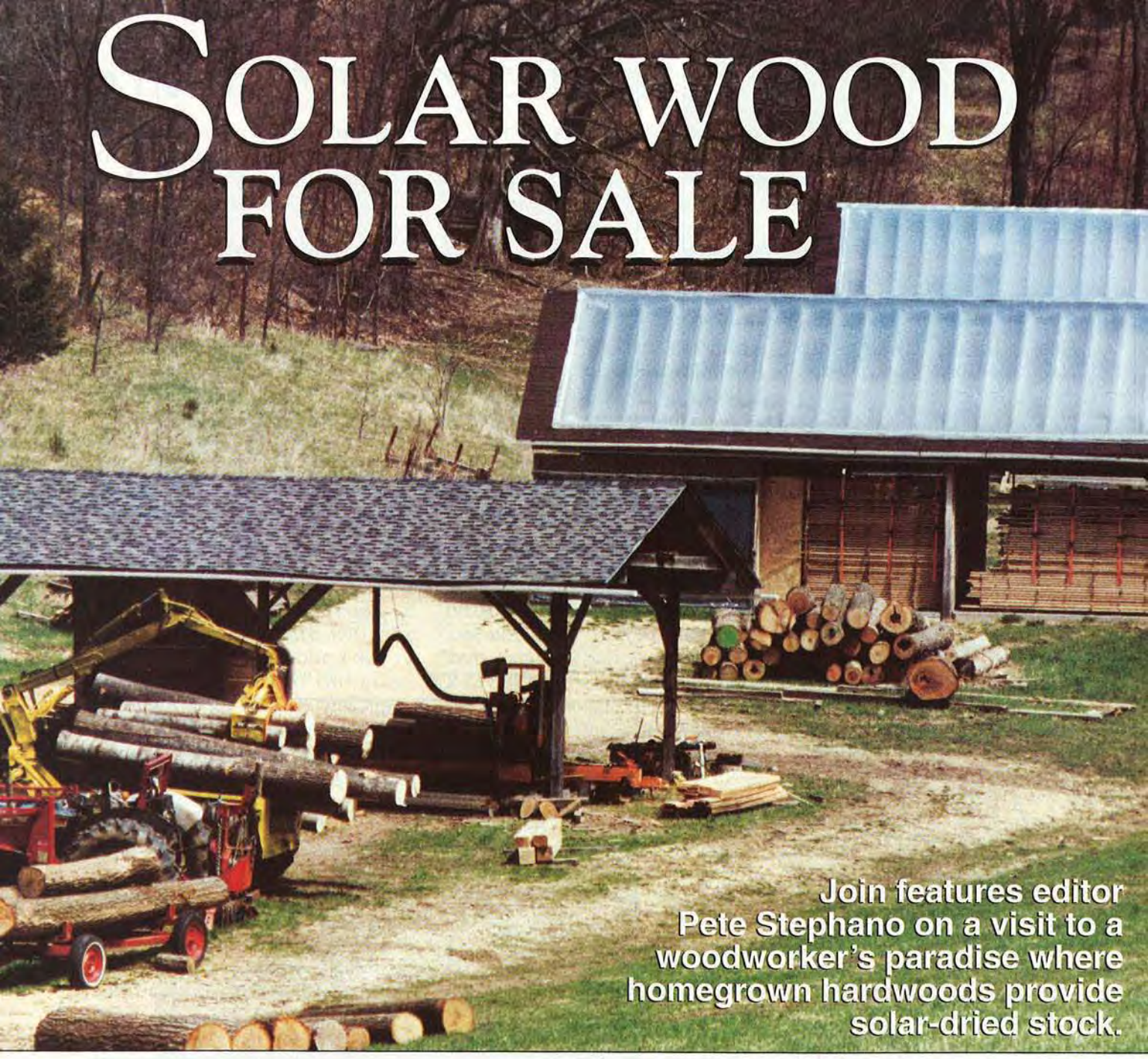








SOLAR WOOD FOR SALE



Join features editor Pete Stephano on a visit to a woodworker's paradise where homegrown hardwoods provide solar-dried stock.

David Rath, a *WOOD*® magazine reader from Elmhurst, Illinois, told me about a small sawmill called Timbergreen Farm, near Spring Green, in southwestern Wisconsin. He said that craftsmen from near and far went there to buy wood because there's such a large species selection and it's dried so carefully that it machines perfectly. The description was enough for me to schedule a visit.

Peter J. Stephano

Peter J. Stephano
Features Editor

Print this article

Spring Green is a beautiful, charming town. Situated in a valley, it's flanked by wooded hillsides. Dairy cattle graze the green meadows and several trout streams ripple their way to the Wisconsin River. The area is so naturally pretty that Frank Lloyd Wright chose a site there for his famed home and architectural school, Taliesin.

A few miles out of Spring Green, the notion hit me that I really was headed somewhere special. I saw young walnut trees, obviously planted, standing straight like soldiers in a field. The hills held bright white birch mixed with aspen, oak, and other hardwoods. Pines and cedars filled in.

At a white dairy barn, I turned in the direction indicated by a sign, "TIMBERGREEN FARM 2 MILES." After making my way into yet another valley, there it was.

Mixed species provide a woodworker's candy store

Jim Birkemeier was piling logs with his tractor when I arrived at Timbergreen Farm. His navy blue

baseball cap and matching coveralls, his working "uniform," displayed the dust of his morning's efforts. (A consulting forester by profession, Jim works with his mom and dad, Helen and Bill, in a family operation.)

The heart of Timbergreen Farm's lumber business, Jim pointed out, was the open-sided sawmill—a seven-year-old, 24-hp Wood-Mizer LT-40 bandsaw mill. "One man, mostly me, can operate this," Jim noted. "It has a hydraulic lift, but I prefer to roll logs onto the mill from a raised deck. It's faster."

"How much wood do you saw in a year?" was an obvious question. "Maybe 100,000 board feet," he said. Then, with obvious pride, Jim told me that nearly all the logs he saws come from the farm's 200 wooded acres. As a forester, he has developed a management

◂ Nestled at the upper end of a valley, Timbergreen Farm's wood drying units take advantage of winds that funnel up the hill. The bandsaw mill is in the foreground.

Jim Birkemeier, at left, helps customer and local craftsman Bob Schadd load up his morning's purchase of stock.

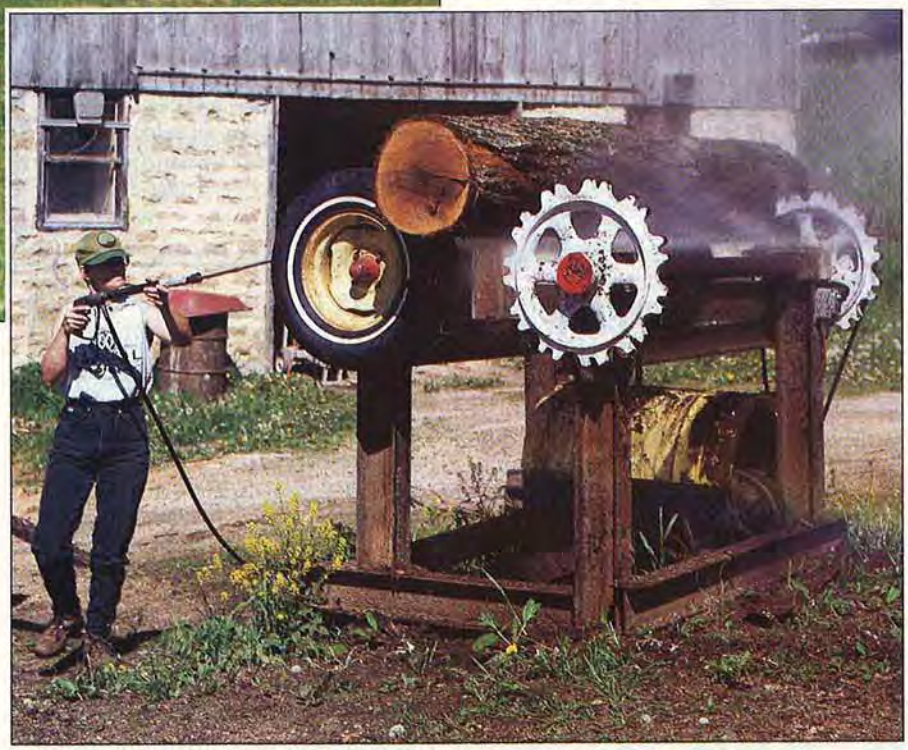
plan with a goal of growing high-quality timber trees, such as red oak. But to give those trees room to grow means the selective harvest of lesser-used trees, too. Unlike clearcutting, where an entire forest or portion of it is cut down, Jim's forestry practice takes but a few scattered trees at a time. This keeps the Timbergreen forest—and others that he manages—productive forever.

"As a result," he said, "we harvest, saw, dry, and sell aspen, white oak, red oak, basswood, butternut, red maple, red elm, white elm, cherry, white ash, hickory, some walnut, white pine, and a little eastern red cedar. In our salesroom, I can have 40,000 board feet of kiln-dried wood in a mix of all those species."

Wood you have to sticker only once

"The wind always blows right up the valley into the stacks, no matter which direction it's coming from elsewhere," Jim pointed out, feigning wonderment as we gazed at part of the drying facility, one of two solar kilns that he designed and built. "The buildings add a venturi effect. That is, the wind whips through the stacks at a faster speed than we can feel outside. So, the wood air-dries to 12 percent moisture in three months, winter or summer, instead of the usual six months to a year."

As we inspected the air-drying wood that filled one of the buildings' three side-by-side chambers, Jim explained the process. "After the stickered wood in a chamber—3,500 board feet divided into two piles—has air-dried to 12



Cindy Huppert, Jim Birkemeier's partner, pressure-washes a log of red oak to remove dirt that would otherwise dull the mill's bandsaw blade. The homebuilt rack slowly turns the log via an electric chain-drive mechanism.

Continued

SOLAR WOOD FOR SALE

percent, we close the chamber with the sliding doors, making that chamber into a solar-heated kiln [see drawing *right*]."

"The air recirculates from the lumber piles back up and through the solar collector," Jim added. "It takes about about two months to get the boards to six percent moisture content."

Having personally stickered wood to air dry, only to resticker it later in a kiln, I was impressed. Keeping the wood in one spot was something I hadn't seen anywhere before in my travels.

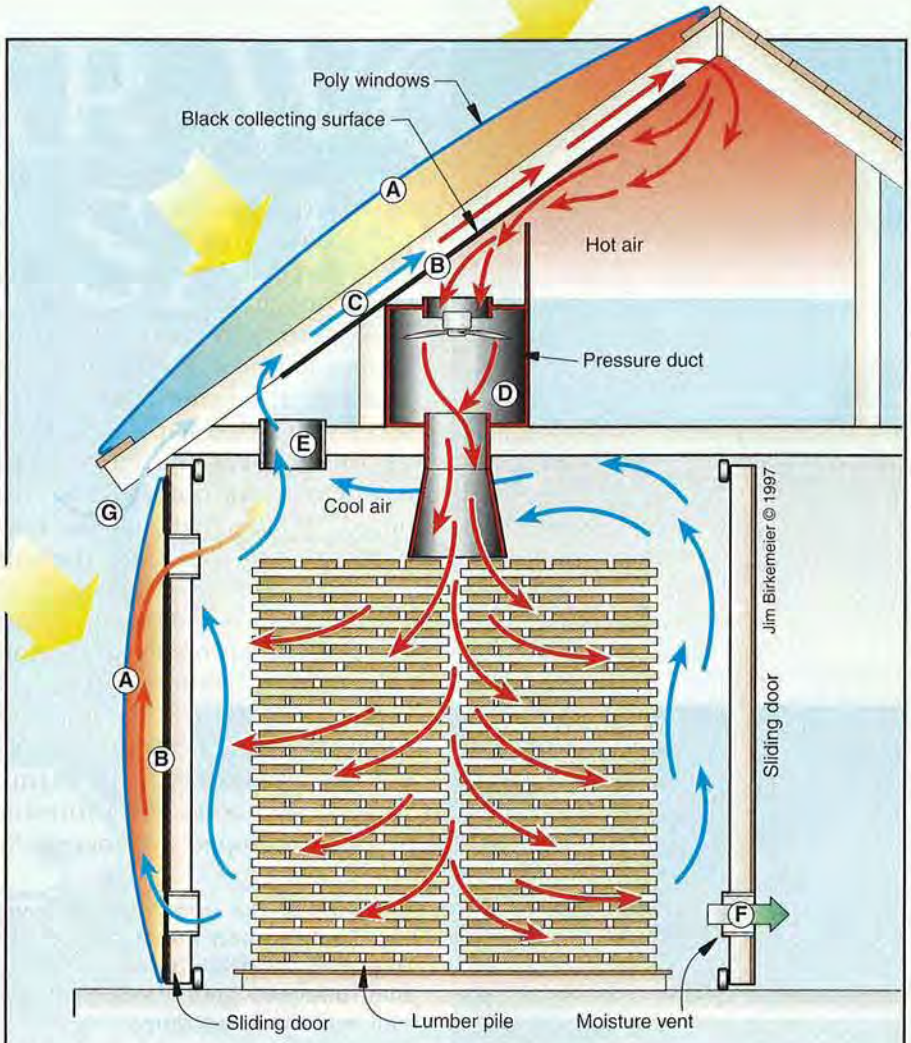
Of course, Jim has learned about drying variables. "There's the thickness of the wood, and our Wisconsin weather," he chuckled.

Pete Stephano unloads the stock he purchased at Timbergreen Farm. He holds a quartersawn white oak board. Against the tree leans spalted white oak.

"I prefer to kiln-dry boards of the same thickness. When we can't do that, the thicker wood goes on top. At night, the heat rises, drying the upper boards a little faster.

"The industry standard for loss [checking, cracking, etc.] during drying runs about seven percent," said Jim. "We have next to none. And there's no stress in the wood. That keeps customers coming back again and again."

Photographs: Jim Birkemeier; Pete Stephano
Drawing: Kim Downing



1 Poly windows (A) let solar energy through to black surface (B), creating hot air.

2 Air flows by convection (C) up the black surface to the top of the roof.

3 Fan in the pressure duct (D) blows hot air throughout the lumber.

4 Cool air is released into the cool air duct (E).

5 Heavier moist air exits through a moisture vent (F) located near the collector floor.

6 Small amounts of fresh air enter at the bottom of the solar collector (G) to replace vented moist air.

Find your own paradise

There are several thousand small sawmills across the U.S. To find those in your state, contact the department of natural resources' forestry division for a current list. Or, you can call Wood-Mizer at 800/553-0182 to find a bandsaw mill owner near you. When you shop small mills, don't expect wood always surfaced and edged. And check out their drying and storing methods. What you want is straight stock dried to six percent.

Don't call, drop by

Timbergreen Farm welcomes company and customers. The Birkemeiers do have a lumber price list (by species and grade, prices vary from $1 to $3.50 per board foot), but they don't sell mail-order. There's usually someone around, especially on Saturdays. To arrange for a tour or lumber shopping, write:

Timbergreen Farm,
S11463 Soeldner Rd.,
Spring Green, WI 53588. Visit www.execpc.com/timbergreen on the Internet.

Z SERIES™

Dollar for dollar you can't beat Grizzly – You compare!

For the finest in woodworking machines, grab the Grizzly Z-Series. From the rugged G1023Z Table Saw with the innovative Shop Fox™ Fence to the newly-redesigned G1014Z, the Z-Series is just one of many examples of Grizzly's continuing commitment to outstanding tools at outstanding prices.

10" Tilting Arbor Super Heavy-Duty Table Saw

WITH U.S.A. MADE MOTOR!

FREE hat and saw blade!

G1023Z

$1095.00

FEATURES:
- 3 H.P. 220V/18 amp single-phase motor
- 36" x 27" table with wings
- Table height: 34"
- 5/8" arbor
- Shop Fox® Fence
- Built-in dust port
- Cutting capacity: 3 1/8" @ 90°
- Cutting capacity: 2 1/8" @ 45°
- Includes 32-tooth carbide-tip blade
- Shipping weight: 425 lbs.

6" x 47" Jointer w/ Cabinet Stand

INTRODUCTORY PRICE!

G1182Z

$395.00

FREE hat!

FEATURES:
- 1 H.P., 110/220V, single phase, ball bearing motor, prewired 110V
- Re-designed 4" x 29 1/4" fence system
- New cabinet stand w/ chip chute
- Shipping weight approx. 275 lbs.

10" Heavy-Duty Table Saw

FREE hat and saw blade!

G1022Z

$449.00

FEATURES:
- 1 1/2 H.P. TEFC 16/8-amp motor
- 27 1/8" x 41" table w/ wings
- Precision beveled edge
- 32-tooth carbide tipped blade
- Shipping weight 270 lbs.

FREE hat!

This is one beautiful machine!

14" x 40" Swivel Head Wood Lathe

G1067Z

$449.00

FEATURES:
- 1/2 H.P. TEFC motor, 1725 r.p.m.
- 13 3/4" swing over bed
- 40" gap between centers
- 6 speeds: 600-2100 r.p.m.
- Shipping weight 200 lbs.

Combination Sander 6" x 48" Belt – 9" Disc

G1014Z

SPECIAL OFFER!

$169.95

Reg. $199.95

Includes FREE hat!

FEATURES:
- Quick change belt release
- 9" cast iron disc
- Industrial bearings
- Cast iron construction
- 2" dust port
- Shipping weight 120 lbs.

71P 136797658

CALL, FAX OR WRITE ANYTIME – 24 HOURS A DAY, FOR A FREE WOOD OR METAL CATALOG!

VISA MasterCard DISCOVER NOVUS

Grizzly IMPORTS, INC.

1-800-523-4777

Cust. Svc: (717) 326-3806 FAX: (800) 438-5901

http://www.grizzlyimports.com

Circle No. 860

100% SATISFACTION GUARANTEED!
★ FREE SHIPPING! FOR ALL ITEMS SHOWN BELOW!

HARBOR FREIGHT TOOLS

ORDER FROM OUR WEB SITE FOR EXTRA SAVINGS!
http://www.harborfreight.com

DELTA® 10" COMPOUND MITER SAW

Delta 36-220

LIMITED QUANTITIES

2-1/2 HP, 15 amp motor. D-handle with trigger switch for positive control. Electric brake automatically stops blade in seconds. Includes dust collection bag, 10" blade with 5/8" arbor, and retractable blade guard.

- Blade speed: 4900 RPM @ no-load
- Capacities: 2-3/4" x 5-3/4" crosscut; 2-3/4" x 4-1/8" 45° right & left miter; 1-3/4" x 5-3/4" 45° left bevel; 1-3/4" x 4-1/8" 45° x 45° compound
- Table diameter: 10-1/2" • Tool wt.: 60 lbs.
- Factory reconditioned, factory perfect

ITEM 06125-3KGA **$155.99**

CENTRAL MACHINERY 16" SCROLL SAW

- Precision milled 14-1/2" x 8" table tilts 0° to 45°
- Uses pin end blades, 5-1/2" long
- Heavy duty cast iron frame and base reduce vibration
- 1/8 HP, 110V, .83 amps
- 1750 SPM blade speed
- 7/8" blade stroke

~~$69.99~~ **$54.99**
ITEM 34618-5KGA

5 PC. 5-1/2" SAW BLADES

- Pin end type

ITEM 35024-0KGA **$4.99**

ALL NATURAL BRISTLES

SLASHED UP TO 50%

INDUSTRIAL GRADE CHIP BRUSHES

Ideal all-around brushes. Used in a varietyof manufacturing processes. Rugged construction includes pure China bristle and sturdy hardwood handles. Sold by the case.

SIZE	QTY.	ITEM	PRICE
1"	36	04181-2KGA	$4.99
2"	36	04182-3KGA	$9.99
3"	12	04183-2KGA	$5.99
4"	12	04184-3KGA	$9.99

CHICAGO Electric Power Tools INDUSTRIAL

COMPARE AT $89.95

14.4V, 3/8" CORDLESS DRILL KIT W/ KEYLESS CHUCK

DUAL VARIABLE SPEED

Get long run times and all the extras! Mechanical brake stops chuck in seconds. Uses high quality Jacobs® chuck. Two speed ranges, good for drilling & driving.

- Dual speed ranges, 0 to 340 and 0 to 1200 RPM reversible • 16 torque settings
- Includes 6 pc. drill bit set, 6 pc. screwdriver bit set, magnetic extension bit, 1 hour quick charger, battery with power indicator, and carrying case

ITEM 35991-4KGA **$69.99**

14.4V BATTERY

ITEM 35992-1KGA **$29.99**

Pittsburgh LIFETIME WARRANTY

2 PC. 3/4" HEAVY DUTY PIPE CLAMP SET

Constructed from heat-treated cast iron, these durable clamps keep your work rock steady. Just screw the handle side onto a 3/4" threaded pipe and slide the spring loaded end on. You're ready to go! Pipe not included.

- Handle screw operating range: 2-1/8"
- 1-1/2" throat depth
- Weight: 2-7/16 lbs.

ITEM 31255-1KGA ~~$6.99~~ **$3.99**

1/2" PIPE CLAMP

- 1-1/2" throat depth
- Weight: 1-4/5 lbs.

ITEM 37056-4KGA ~~$5.99~~ **$3.49**

COMPARE AT $54.95

TUNGSTEN CARBIDE TIPPED ROUTER BIT SETS

Both include individually organized storage cases. 15 most popular sizes. • 1/4" shanks

15 PC. ASSORTED BITS

Includes: 1-1/4" rabbeting♦, 1-3/8" cove♦, 1-1/16" roman ogee♦, 1-1/4" rounding over♦, 1/2" flush trimming♦, 1-3/16" 45° chamfer♦, 1/2" dovetail, 3/4" straight, 1/2" straight, 3/8" V-groove, 1/4" combination panel, 1/4" straight, 1/2" mortising, 1/4" cove, 1/8" straight ♦Includes pilot bearing

ITEM 31164-9KGA **$39.99**

4 PC. ROUNDING OVER BITS

- Sizes: 1/8", 1/4", 3/8", & 1/2"
- Set includes 4 rounding over bits w/pilot bearing tips
- 2 flutes each
- 1-5/32" long shanks

ITEM 33078-5KGA **$19.99**

EMPIRE® 8" ALL PURPOSE BENCH DUSTERS

Big 8" x 2-1/4" emprene bristle brush face with full size handle.

ITEM 02410-1KGA 2 PACK ~~$5.99~~ **$4.99**

8-1/8" BENCH HOLD-DOWN

Drill a 3/4" hole in any wood topped work bench and install the holdfast. Acts as a clamp without being rigid. 8-1/8"L x 3/4" diameter.

ITEM 34437-3KGA ~~$3.99~~ **$2.99**

CENTRAL MACHINERY 4" x 36" BELT/ 6" DISC SANDER

Adjustable belt sands inside and outside curves. Cast aluminum sanding disc features a cast aluminum table that locks in any angle from 0° to 45°. Table can be repositioned for use with belt or disc.

Includes: 7-1/2" x 5" cast aluminum table, miter gauge, and adjustable backstop; 4000 FPM belt speed; 1725 RPM belt speed; 1/3 HP, 1725 RPM, 115V, single phase

SPECIAL PURCHASE!

ITEM 05154-6KGA **$59.99**

SANDING BELT CLEANER

- Increase the life of your sanding belts and discs up to 500%
- 8-1/2" x 1-1/2" x 1-1/2"

ITEM 30766-1KGA **$4.99**

HOLE SAW SET

Cut smooth, clean, accurate holes through wood, drywall, or even plaster up to 1" thick! Ideal for plumbers and electricians.

11 PC. HOLE SAW KIT

Includes 8 tool steel cups sized 3/4", 7/8", 1", 1-1/4", 1-1/2", 1-3/4", 2", and 2-1/2", plus 1/4" and 3/8" mandrels, a 1/4" bit, a hex wrench, and a blow mold case.

ITEM 01263-6KGA **$14.99**

10 PC. LARGE HOLE SAW KIT

Includes cutting cup sizes 2-1/2", 3", 3-1/2", 4", and 5", plus 3/8" mandrell, drive plate, hex wrench, & blow mold case.

ITEM 36222-0KGA **$12.99**

CENTRAL MACHINERY 10", 2 HP, BENCH TABLE SAW

Die cast aluminum table 25-3/4" x 16", has adjustable 17-7/8" x 2" rip fence and inch/metric scale for precise cutting. Blade adjustments control angle and depth of cut.

- Maximum depth of cut at 90°: 3-1/8"; at 45°: 2-1/2" • Shipping weight: 36 lbs.
- Miter gauge adjusts 0° - 60° left and right
- Motor: 2 HP, 115V, 60 Hz, 10 amp, 4500 RPM • Blade capacity: 10" with 5/8" arbor
- Blade sold separately, below

ITEM 35715-3KGA ~~$119.99~~ **$89.99**

10" 40 TOOTH CARBIDE TIP SAW BLADE

- 5/8" arbor

ITEM 00529-4KGA **$9.99**

DRILL MASTER TITANIUM NITRIDE FORSTNER BIT SET

The combination of high carbon steel with a titanium nitride coating will keep you drilling long after other bits have become worthless. Forstner design makes smooth flat bottomed holes, or angled holes with oval openings. Stores in its own box.

7 PC. SET

- Sizes: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", and 1"

ITEM 01903-8KGA **$9.99**

20 PC. SET

COMPARE AT $49.95

- 20 sizes from 1/4" to 3/4" by 16ths, 7/8", 15/16", 1" to 2" by 8ths

ITEM 31130-7KGA **$34.99**

DELTA® Delta 22-540 12" PORTABLE PLANER

- Motor: 15 amp, 120V
- Capacities: 12" width, 6" thick, 3/16" depth of cut
- 26.2 FPM feed rate
- 8000 RPM, 16,000 CPM
- Includes removable table extensions, and fold away depth adjustment for easy transport
- 27-1/4" x 20-1/2" x 15" overall dimensions • 68 lbs. tool weight

ITEM 00258-3KGA **$339.99**

RECONDITIONED PLANER

LIMITED QUANTITIES

- Same specs as above

ITEM 06177-1KGA **$299.99**

★ Within the 48 States / $2.95 handling on all orders. No per item shipping and handling charge.

4091

Call To Order or Ask for Free Catalog:
Order 24 Hours a Day/7 Days a Week
Most Phone Orders Shipped in 48 Hours

FAX TOLL FREE: 1-800-905-5220

1-800-423-2567

CHARGE IT!

Or Send Check or Money Order to: Harbor Freight Tools, 3491 Mission Oaks Blvd. Box 6010, Camarillo, CA 93011

Circle No. 46

Are you Solvent Savvy?

Solvents smell bad, and they're flammable. But you have to use them in finishing your projects. Here you'll learn which ones to use and how to deal with these common shop materials.

You can gauge the danger of any solvent by the toxicity warning on its label. So make sure that you always read it for health-risk warnings, then proceed with caution. Such material requires careful handling and personal protection. But it won't hurt to exercise reasonable care even with materials labeled as nontoxic or that you know little or nothing about. Nontoxic doesn't always mean harmless.

Countermeasures give you protection

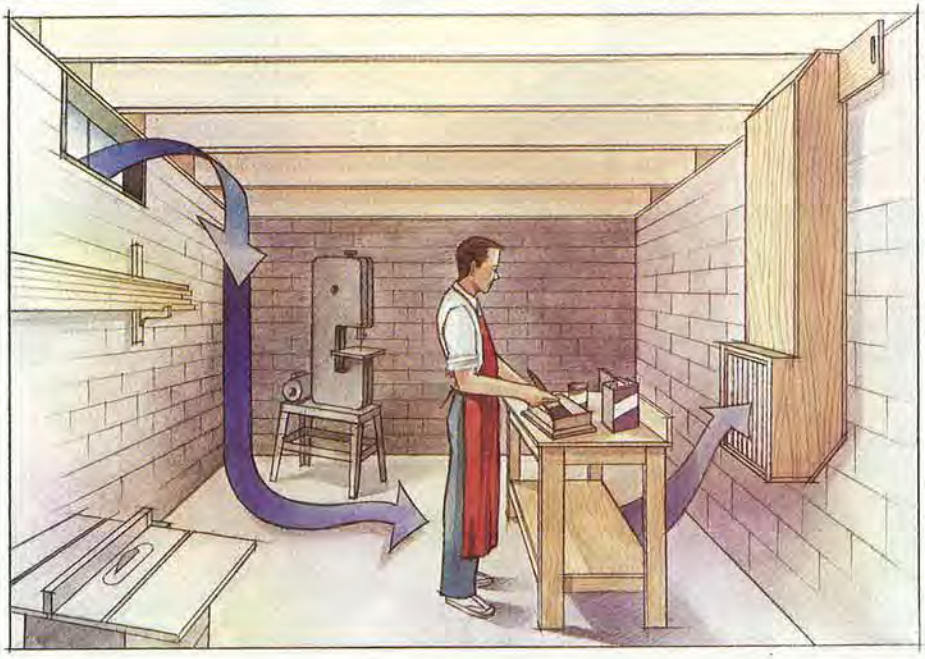
Your countermeasures to the possible effects of toxic materials should include ventilation, a respirator, rubber gloves, and hygiene. Each adds a layer of protection, and doesn't cost much.

•***Ventilation***. An open door and window, or two open windows and a floor fan, may not provide adequate ventilation. If your shop adjoins living quarters, a good rule of thumb states that if you or someone else can smell solvent, your ventilation falls short. The drawings *above right* and *opposite page* depict a simple situation that provides adequate dilution ventilation (fresh air dilutes the noxious vapor) for brushing or wiping solvents in a basement shop. The ventilator is *not* intended for spraying flammable finishes. In addition to a flow of fresh air, you'll need a respirator.

COMMON SOLVENTS AND THINNERS

Solvents dissolve cured finishes. Thinners dilute finishing solutions. Those are the definitions of two sometimes misunderstood words. But in the chart below, you'll see that the same material many times does both.

MATERIAL	WHAT IT DISSOLVES	WHAT IT THINS
Denatured alcohol	shellac, lacquer, water-based	shellac
Lacquer thinner	shellac, lacquer, water-based	lacquer, catalized lacquer
Mineral spirits, naphtha, turpentine	wax	wax, oil, varnish
Water	n/a	water-based



•***Respirators***. Select a dual-filter chemical respirator that fits comfortably over your nose and mouth (look for one with "NIOSH/MSHA Approved for organic vapors" on the package). These come in both full-face and half-mask models; the latter costs less ($20), and as you might expect, offers less protection.

•***Gloves***. Absorption of toxins through the skin is just as dangerous to you as inhalation. And disposable latex gloves prove useless when handling many solvents—some chemicals pass right through them. Look for gloves made from nitrile in your hardware or paint store (they cost about $2 per pair).

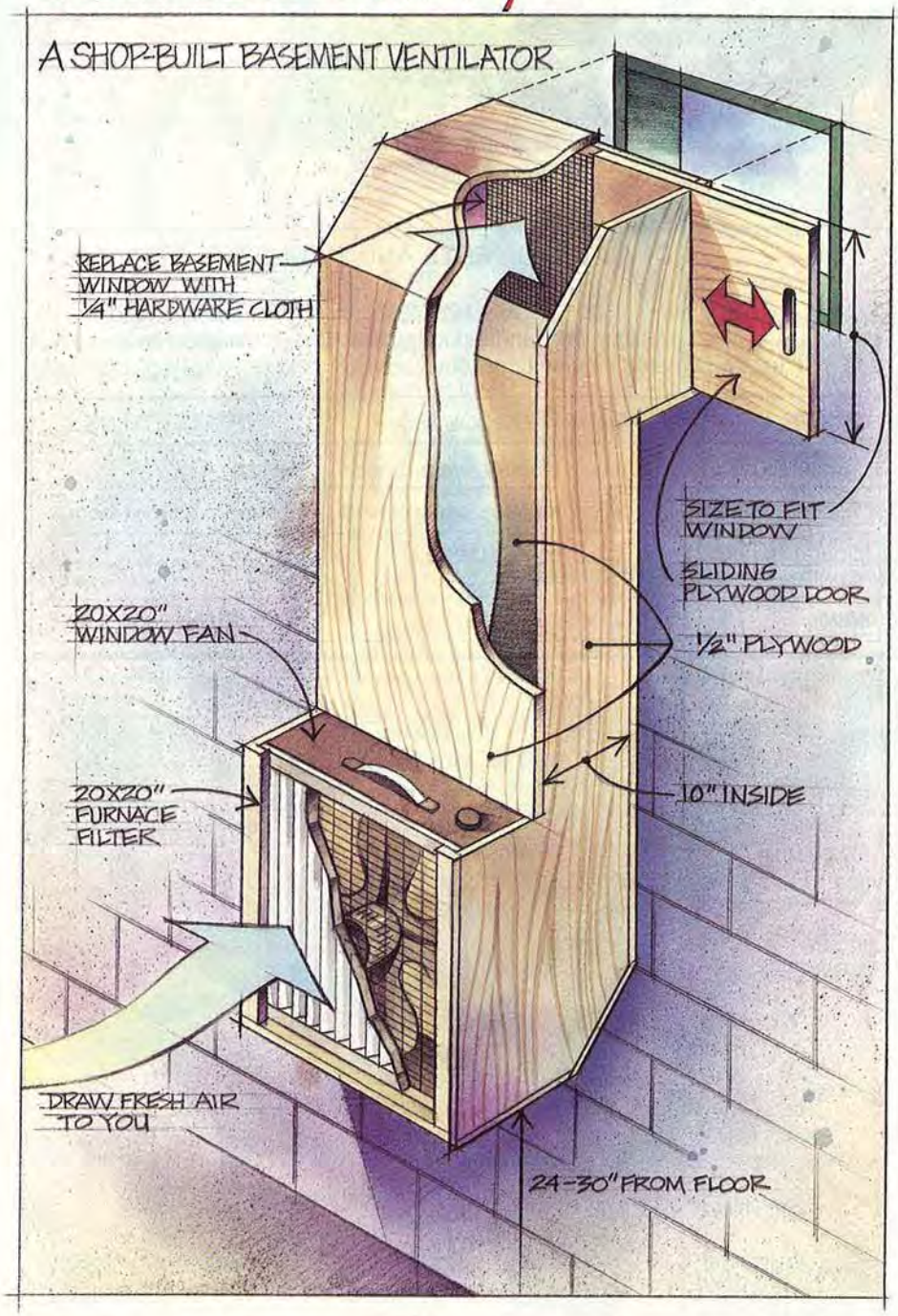
•***Hygiene***. Always wash your hands—even if you wore gloves—and face after handling solvents. And don't eat or drink while working with the material. Smoking isn't advised, either.

Continued on page 82

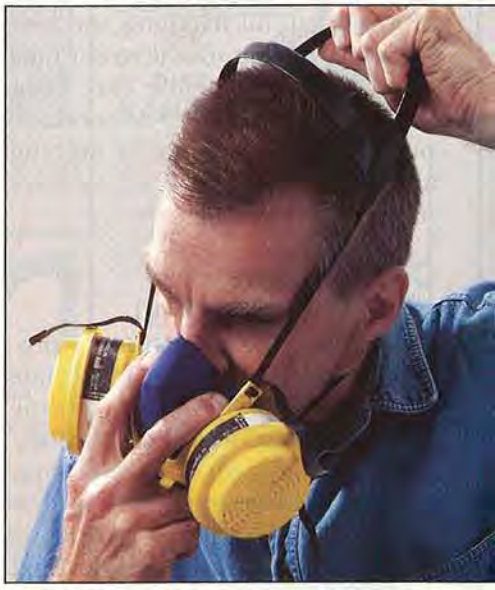
Print this article

Solvent Savvy?

Continued from page 81



Labels on solvent containers carry health-risk warnings, but offer little advice for protecting yourself.



A half-mask, dual-filter respirator fits comfortably and offers vapor protection.

Cleaning spilled finish or paint off your skin with a solvent is a bad practice, too. Instead, wipe off as much as possible, then wash with a hand cleaner or abrasive soap.

Quality cabinets secure flammable liquids

Count on solvents to be flammable. And with enough heat, they can blow up. Stored on open shelves in your shop, they pose additional hazards should a raging fire occur.

For your best protection in the case of solvents, consider buying a flammable-liquid storage cabinet made of heavy, 18-gauge steel. They securely close, and depending on how much you care to spend, can have dual walls, vents, fusible links that automatically close the doors at a certain temperature, and keyed locks. Depending on size, they range in price from $300 to $700. All carry the warning: FLAMMABLE, KEEP FIRE AWAY or similar cautions.

Don't overlook your dirty, solvent-soaked cloths, either. Stretch them out to dry clothesline style before reusing or disposal, or shell out for a lidded, metal oily-waste can in which to deposit used cloths. One of 6-gallon capacity costs about $40. Oil-soaked cloths left crumpled in a corner become potential bombs that can spontaneously combust.

Photographs: John Hetherington
Drawings: Brian Jensen

Own a Complete Home Shop

It's 10 tools in 1!

Do the work of 10 tools with 1 compact, affordable machine

- Work on wood, metal, or plastic
- Easy, fun to use
- Built to last a lifetime

The perfect friend to relax with, the perfect partner to help get work done

WOOD		METAL
34″ Lathe		Lathe
10″/12″ Table saw	Router	Mill
12″ Disc sander	Shaper	Drill
Horizontal boring		
Drill press		

OWNERS SAY:

"This isn't the Cadillac, this is the Mercedes of combination woodworking tools. My old 5-in-1 is going to be very lonely over in the corner."
—Edward Zych (TN)

SUPER SHOP

FREE Info Pak

1-800-476-4849

Ask for operator WDW81

or write SuperShop
Dept. WDW81 · PO Box 1517
Ann Arbor, MI 48106-1517

PLUS! Each machine includes:
Premium Tool Pak • Toll-free Helpline
2-year Warranty

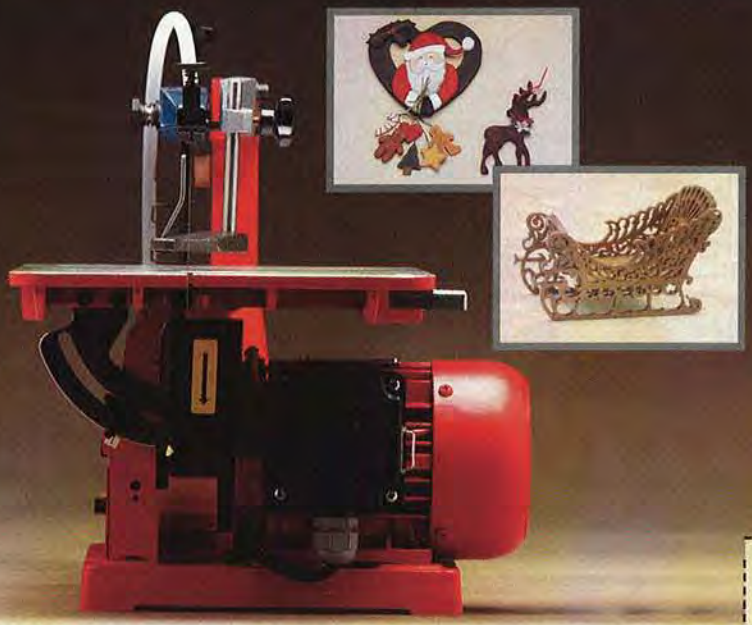
Circle No. 100

HEGNER – the Better Scroll Saw

Multimax 18v
AMERICAN WOODWORKER EDITORS' CHOICE

Multimax 14e
1996 WOOD MAGAZINE EDITORS' CHOICE TOP TOOL

Multimax 22v
EDITORS' CHOICE WOOD IDEA SHOP



HEGNER Scroll Saws are better because they are smoother, faster and easier to operate. Thousands of HEGNER owners, as well as major woodworking publications, agree that HEGNER saws offer many advantages over all other brands.

Try one yourself and discover the benefits:

- clean, accurate cuts with no sanding
- easy blade change
- smooth quiet operation
- long blade life
- Safety-Stop upper arm
- Space-saving design
- 6 year warranty

Call or write for your FREE Catalog

1•800•322•2226

(Please mention Ad 803)

ADVANCED MACHINERY
Dept. 803 • P.O.Box 312 • New Castle, DE 19720
www.advmachinery.com

Circle No. 3

☐ **Send me FREE information on Hegner Scroll Saws !**

Name _____

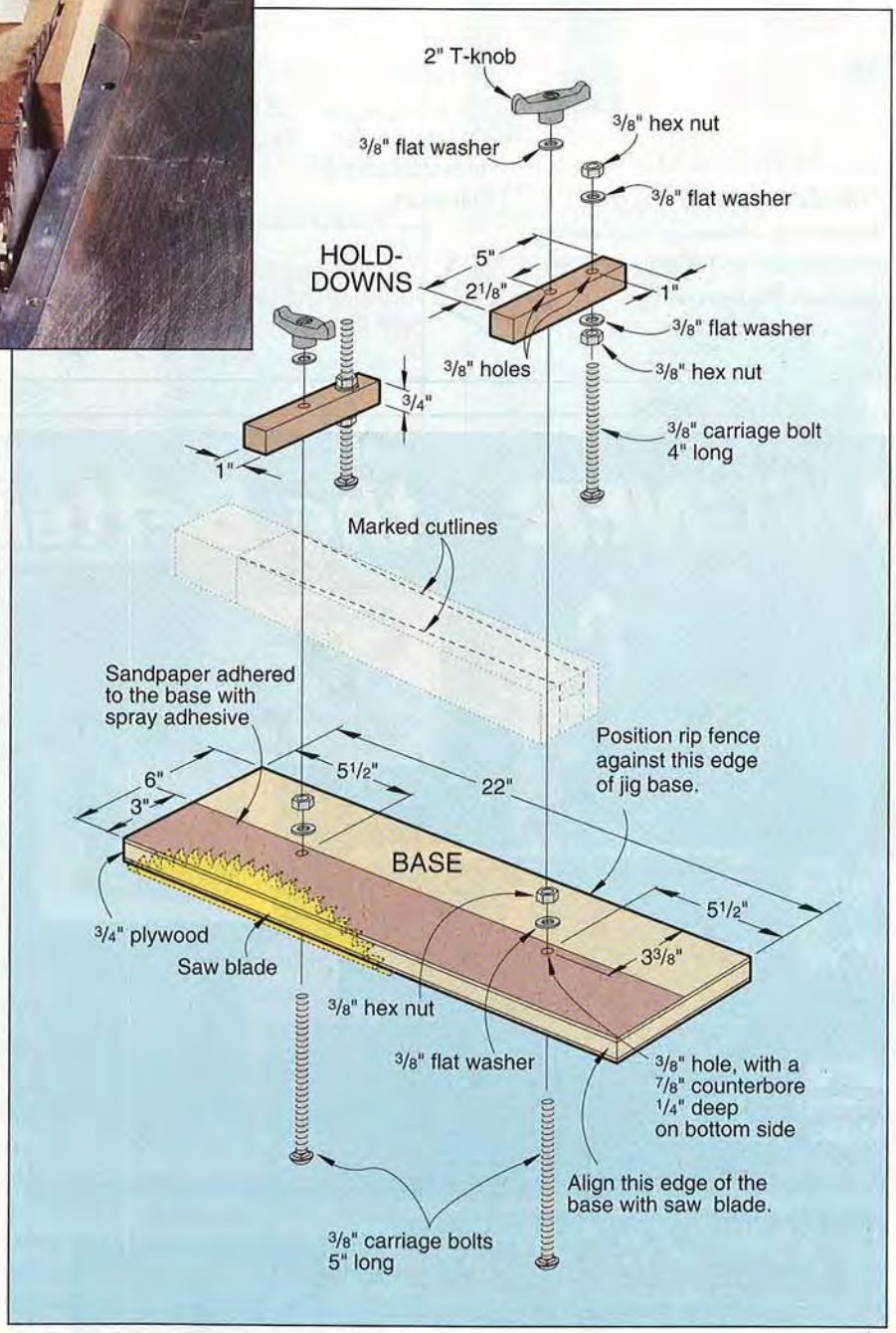
Address _____

City _____ State _____ Zip _____

Phone _____ 803

HEGNER makes it better!

SUPER-SIMPLE TAPER JIG



Taper jigs don't get much more basic than this hold-down taper jig. Build the plywood base and hardwood hold-downs as shown on the drawing. Then, mark the angled cutline(s) on your workpiece. Position the rip fence so the inside edge of the jig base is against the fence and the outside edge of the base is flush with the blade. Align the marked cutline on the workpiece with the outside edge of the jig next to the blade. Secure in place, and make the cut as shown in the photo above.

To simplify matters, we've added a Buying Guide for the hardware used on the jig.

Buying Guide

Hardware kit. 2-2" T-knobs, 2-⅜" carriage bolts 4" long with nuts and washers, 2-⅜" carriage bolts 5" long with mating nuts and washers, and a 3×22" strip of sandpaper. Kit no. TAP-J, $9.95 ppd. Schlabaugh and Sons, 720 14th Street, Kalona, IA 52247, or call 800/346-9663 to order.

Project Design: Jan Hale Svec
Illustration: Roxanne LeMoine
Photograph: Hetherington Studio

THE WOODTURNERS CATALOG

Craft Supplies USA offers Woodturners the finest selection of woodturning tools and accessories anywhere. We carry signature tools such as Henry Taylor Custom Tools, Woodfast lathes, Vicmarc mini lathes, One Way and Axminster chucks, McNaughton systems, pen and pencil kits, and Dale Nish Workshops.

We offer the very lowest prices at all times and guarantee every product we sell. So give us a try, call now for your **FREE** copy of The Woodturners Catalog!

CRAFT SUPPLIES USA

1-800-551-8876

1287 EAST 1120 SOUTH PROVO UTAH 84606

Visit us on the internet at: www.craftusa.com

Circle No. 830

NEW Wood Turning Accessories* from HUT© Products

YOUR EVERY PEN TURNING NEED!

Full 1/2 HP DC Motor

* OPTIONAL ACCESSORIES:
* Pen drilling jig
* In-board tool rest
* Carriage tool rest
* Out-board tool rest

American made

70 - 3000 RPM
Electronic Speed Control
Uses a versatile #1 MT.
No awkward collets.

Sherline Model 4000A
Mini Machinist Lathe

*FREE $50 worth of quality **HUT** merchandise when you buy either package. Offer good for a limited time.*

SHERLINE: America's #1 Pen Turning Lathe

PACKAGE ONE: $455.
Lathe with live center, carbide cutting tool, rocker tool post, and **our** PEN TURNING MANUAL.

PACKAGE TWO: $540.
Everything in package one plus a Jacobs drill chuck and a 3-jawed chuck.
A $40 SAVINGS!

INCLUDES U.S. GROUND SHIPPING

FREE CATALOG 1-800-684-9371

Circle No. 230

it's Christmas...forget the socks and ties...buy tools

PORTER-CABLE

693PK 1-1/2hp Router with 1001 base & 6931 Plunge base & case for only $198

90690	1.5 hp Router w/ case	158
100	7/8 hp Router	106
310	Laminate Trimmer	146
314	4 1/2" Trim saw	159
330	Speed bloc Sander	61
333	RO Sander 5" H&L	63
334	RO Sander 5" PSA	63
335	NEW! 6"RO Sander	84
352VS	3X21 Sander VS	163
360	3X24 Sander w/ bag	211
360VS	NEW! VS Sander	228
362	4X24 Sander w/ bag	217
362VS	NEW! VS Sander	238
548	Wormgear Jigsaw	229
5116	16" Dovetail Jig	276
556	Buscuit Joiner	131
693	1.5hp Plunge Router	179
6931	Plunge Base	79
697	Router Table &motor	227
698	Router Table only	133
7334	4" RO Sander	109
7518	5 speed 3hp Router	273
7519	3 hp Router	254
7537	2 hp D-Handle Rtr	224
7538	3 hp Plunge Router	269
7810	Vacuum	257
9118	Door Planer Kit	234
9345	Sawboss w/ case	136
9444	Profile Sander	95
9444VS	VS Profile Sander	109
97310	Trimmer Kit	187
97355	5" RO Sander	144
97366	6" RO Sander	148

NEW NAILGUNS!!!

BN125 1 1/4" Brad Nailer $86

BN200	2" Brad Nailer	133
FN250A	2 1/2" 16g Finish	189
DA250A	2 1/2" angle Finish	245
NS150	1/4" crown Stapler	156
FR350	Framing Nailer	299
CF1540	1-1/2 hp Compressor	293

NEW CORDLESS!!!

9862	12V T-style Drill Kit	173
9862F	12V Kit w/flashlight	188
9863	12V Push handle Kit	184
9863F	Kit w/flashlight	194
9872	14V Drill Kit	188

TRUTRIP

Clamp 'n Tool Guide		Back-to-Back Bench Clamp	
50C	$ 29.50	BB50	$ 45.95
36C	26.50	BB36	37.95
24C	22.50	BB18	31.95

Panasonic

EY6100EQKW NEW! PREDATOR 12 V CORDLESS DRILL IRONMAN $177

EY6101EQKW 1/2" chuck IRONMAN 2 batteries 225

Milwaukee

6496-6 10" Compound Slide Miter $568

6497	Delux 6496	648
0234-6	1/2" Magnum Drill	128
0375-6	3/8" Close Qtr Drill	147
0379-6	1/2" Close Qtr Drill	164
0415-21	12VCordless Kit	171
0479-6	12V RtAngle Cordless	243
0511-21	14V Cordless	210
3107-1	VS Rt Angle Drill	233
5682	2 Hp Router	164
6020-20	6"RO Sander	153
6025-20	5" RO Sander	134
6101-6	NEW Bandfile	193
6215	Elec. Chainsaw	230
6266	NEW!! Jig Saw	157
6494-6	10" Compound Miter	314
6517-20	New! Quikrok Sawzall	154
6537	VS Super Sawzall	174
6546-1	CordlessScrewdriver	89
6767-1	Screwdriver Kit	135

RYOBI

AP10 Replacement Blades 24.95

HT20VSK	MULTI TOOL	54
DBJ50	Mini Biscuit Joiner	68
OSS450	Spindle Sander	158

BOSCH

B4200 $129 VS Orbital Jigsaw

1587VSKB	Jig Saw Kit	189
1604AKX	1-3/4 hp Router	159
1606A	D-Handle Router	179
1609KX	TrimKit	233
1943LED	Heat Gun	109
3283DVS	5" RO Sander	99
3915	Compound Miter	577
B1350	1 3/4 hp Router	109
B1450	2hp VS Plunge Rtr	179
B1550	3hp Router	199
B4050	Inline Jig Saw	99
B7001	VS Detail Sander	78
B7100	1/3 sheet Sander	59

DEWALT

DW682K Biscuit Joiner $198

DW106	3/8" Keyl'ss Drill	73
DW306K	RecipSaw	163
DW321K	Jigsaw Kit	163
DW362K	7 1/4" Circ. Saw	129
DW364	7 1/4" Circ. Saw	161
DW420	5" PSA RO Sand	74
DW431	3X21 Belt Sander	187
DW443	6" H&L RO Sand	144
DW444	6"PSA RO Sand.	144
DW610	1 1/2 Hp Router	149
DW615	1 1/4 Plunge Rtr	166
DW621	2Hp Plunge Rtr	217
DW625	3Hp Plunge Rtr	277
DW670	Trim Router	98
DW673K	Trimmer Kit	187
DW705	12" Comp Miter	354
DW935	14V Cordl's Saw	158
DW935K	Cordl's Saw Kit	228
DW972K2	12V Cordl" drill	179
DW991K	14V Cordl" drill	198
DW991K2S	14V Combo Kit	339
DW995K2S	18V Combo Kit	379

HITACHI

C8FB2 COMPOUND SLIDE SAW $477

C10FA	10" Miter Saw	299
C10FS	10" Slide Miter	737
C15FB	15" Miter Saw	658
NR83A	Framing Nailer	388
EC12	2hp Compressor	266

SENCO

SLP20 Brad nailer $199

SLS20	Light Duty Stapler	249
SFN1+	2"Finish Gun	289
SFN40	2 1/2" Finish Gun	347
SKS L	1/4" Crown Stapler	274
SN65C	NEW! Framer	397
SCN200R	Coil Rooter	397

AIRY

NAIL GUNS 241SNK

18 G	3/8-1-1/2"Kit	$96
0232SP	18G 1-1/4" Kit	69
EZ2	shoots pins & staples	137
249SNK	18 G 3/4- 2" Kit	129
5661P	2-1/2" Finish Gun	202
626SNK	1/4"Crown 1" StaplerKit	99
350NK	2" 16G Brad Gun	169

Air Matic

AIR COMPRESSORS AM78HC4V 1 1/2 hp-2 tank 305

Rol-Air

COMPRESSORS D1500HP5 1.5 hp 4.5 gal tank $299

freud

5 pc Router Bit 94-100 Cabinet set $167

LU85M010	10" 80T Finish	55
LU84M011	10" 50T Combo	36
LM72M010	10" 24T Rip	35
LU85M015	15" 108T Finish	99
LU92M010	10" 60T Coriant®	58
LU98M010	10" 80T Laminates	67

Construction Master IV

The NEW!!! world's best feet-inch-metric-fraction calculator. Solves rafters hips, valleys, stairs

$69

Pockethole maker $109

KREG JIG for joining faceframes, butt joints and other pocket hole applications

Makita

LS1211 12" Compound Miter Saw $757

LS1013 NEW! 10" Slide Compound Miter 2-Rail System 577

3606	1 hp Router	106
3621A	1 1/4 hp Pinge Router	159
4200H	4 3/8" Trim Saw	169
4304	Jig Saw	159
4305	Jig Saw	156
6213DWAE	3/8" 12V Cordl'	178
6233DWAE	3/8" 14V Cordl'	198
6313DWAE	1/2" 12V Cordl'	196
6333DWAE	1/2" 14V Cordl'	213
9924DB	3X24 Beltsander	188
AN8300	Framing Nailer	326
LS1030	10" Miter Saw	199
LS1040	10" Compound Saw	258

DELTA

37-070 $257 6" Table Top Jointer

14-650	Hollow Mortise Chisler	238
22-560	NEW!12" planer	397
23-710	Sharpening Center	168
31-080	1" Belt 5" Disc Sandr	88
31-460	4" Belt 6" Disc Sandr	133
31-780	Ossilating Sander	193
32-100	Plate Joiner	254
36-040	8" Compound Miter	149
36-090	Sidekick 10" Miter Saw	218
36-210	10" Compound Mit'	248
40-150	15" Scroll Saw	115
40-560	16" Scroll Saw	159

BIESEMEYER

78-900	Commercial T50	324
78-930	Homeshop 28	238
78-931	Homeshop 40	258
78-935	Homeshop 52	268

Detail Sander

Kit w/case & paper VS Msx636-2 $179

Scraper Blade attachment 15.95

30 pc assorted PSA paper 6.95

STABILA

LEVELS - Hand holes. Two vertical vials. Two milled faces. Yellow coat.

2464	24" w/ hand hole	42
2469	36" w/ hand hole	46
2467	48" w/ hand hole	54
2468	72" w/ hand hole	98
2859	NEW Laser Level	325
2699	6 ft —3vial	99
2700	6 ft 6" —3vial	115
2701	8 ft —3vial	125

Mention this add to recieve this WOOD Magazine plan free

12" Sliding Compound Miter Saw DW708 $ 679

NEW! DEWALT STATIONARY TOOLS

10" Table Saw DW744 $ 539

20" VS Scrollsaw DW788 $ 449

12 1/2" Thickness Planer DW733 $ 455

USE VISA, MC, DISCOVER
FREE SHIPPING on orders from this add over $50, to the 48 states, HI and AK extra. Sales limited to stock on hand. Prices subject to change without notice.

ABBEY TOOLS

800-225-6321

1175 N. EAST, ANAHEIM CA. 92805
OPEN 8-5:30 WEEKDAYS 9-2 SATURDAY
Calif. residents add 7.75% state sales tax
SERVING YOU FOR OVER 20 YEARS
96D

Woodworker's Marketplace

This section features advertisers offering products by mail. Additional information can be found in the Woodworker's Resource section. Please contact the advertiser directly or use the Circle No. to the right of each ad to request information through the Woodworker's Resource envelope.

Print this article

Wood Moisture Meter

Professionals and hobbyists can choose from 8 different Mini-Ligno moisture meters:

Versatile
Affordable
Sturdy!
Over 100,000 units sold.

Also introducing
New Mini-Ligno XL

For brochure contact:
Lignomat USA, Ltd. PO Box 30145
503/257-8957 800/227-2105 Portland, OR 97230

Circle No. 1250

Classic Heirloom Cradle

You can easily build this classic cradle which will become a cherished family heirloom to pass from generation to generation. Two sizes available... Baby or Doll.

Two Cradle Plans
One for Babies
One for Dolls

Full Size Plans

Baby size Plan (21 x 35) $14.95 ppd.
Doll size Plan (10 x 18) $8.95 ppd.

Spindles available in Oak or Maple. See our catalog which is sent free with your order.

M/C VISA orders call toll-free 1-800-292-8296
ARMOR Box 445 A, East Northport, NY 11731

Circle No. 315

FURNITURE KITS • COMPONENTS

Table

Our Heirloom-Quality kits are produced from the finest grade 100% **SOLID** Maple, Oak, Cherry, and Mahogany. Many varieties of tables, desks, computer hutches and more are available, and there's even a design-your-own-kit program.

We also offer many separate component parts such as legs to use on your own projects. Delivery is fast and satisfaction is guaranteed.

Queen Anne • Contemporary • Ball-N-Claw

Call or FAX today for **FREE LITERATURE**
(804)847-8489
(804)847-8984 - FAX

HICKORY FRAME CORPORATION
P.O. Box 11585
Lynchburg, VA 24506-1585

Circle No. 1043

The Woodshop At Woodcraft

From Ash to Zircote, the Woodshop stocks over 40 different species of domestic and exotic hardwoods in sizes ranging from pen blanks and carving blocks to 12bf lumber packs. Satisfaction Guaranteed!

WOODCRAFT
Helping You Make Wood Work™
For a FREE Catalog Call: 1-800-542-9115
www.woodcraft.com
210 Wood County Industrial Park Dept. 98W0W1T
PO Box 1686, Parkersburg, WV 26102-1686

Circle No. 955

WoodTurning 100's of PROJECTS

SUPPLIES & ACCESSORIES

PSI KIT **SALE!**
- *Pen Making Kits*
- *Oil Lamp Candles*
- *Hourglasses*
- *Coffee Grinder*
- *Letter Openers*
- *Mirrors & more...*

CARBA-TEC II MINI LATHE

- Variable Speed Motor
- Professional Quality

ONLY... $269.95

FREE CATALOG

Penn State Industries
2850 COMLY RD., PHILADELPHIA, PA 19154
1-800-377-7297

Circle No. 75

Be a Furniture Restoration Specialist

Discover Minuteman

Complete Shop Concept
Strip • Repair
Touch-Up • Fake Grain
Marbelize • Resilver • Refinish
Duplicate Parts • Repair Frames • Veneer

Why Minuteman?

- Proven, Low-Risk, Cash Return
- **Low Start-Up Costs; Expert Training**
- Environmentally Friendly System
- **Wholesale Supplies**
- Handy Sample Kits Available
- **Systems From $1,500-$11,000**
- 28 Years Experience; 3,000+ Shops

No Experience Necessary
◆ Part-Time, Full-Time ◆
Ideal for Men & Women

***FREE* 2-Day Business Exploration Seminar**
No Obligation to buy!
Register Now – Limited Seating!

Call For FREE Catalog
MINUTEMAN, INC.
Ste. 17, P.O. Box 8, Waterloo, WI 53594
1-800-733-1776

Circle No. 1661

Secure the contents of your truck bed with the ROLL-TOP-COVER™

- *Padded Leather-grain Top*
- *All Aluminum Undercarriage*
- *Key Lock Security • Fingertip Access*
- *Affordably Priced*

PACE EDWARDS

For the dealer nearest you Call Toll Free!
1-888-ROLL-TOP
PACE-EDWARDS CO.
2400 Commercial Blvd.
Centralia, WA 98531

Circle No. 1985

Buckboard Bench Kit (Real Springs)

Kit Includes:
Authentically designed steel springs that give a little, steel arms and backrails, complete hardware and full-size plans with detailed instructions. 42"Lx22"W, 18"H to Seat, 30"H to Back

Price: $49.00 (Quantity discounts available)
Pre-cut & drilled oak: $70.00 Additional

The Roudebush Company
PO Box 348A, Star City, IN 46985
800-847-4947
Visa, MC accepted. Price includes shipping UPS

Circle No. 1085

Full-Size Professional Plan
MISSION STYLE FUTON FRAME

Beautiful and unique! With stay-in-place action, Futon Frame stays against the wall, converts easily from sofa to queen size bed. Overall size: 89" long, 41" deep and 41" high.

Plan #720 . . . . . $28.00
Catalog of plans (Free with order) . . . $3.00

Fine Furniture Plans Since 1968
FURNITURE DESIGNS, INC., Dept. BF-18
1827 Elmdale Ave., Glenview, IL 60025 **1-800-657-7692**

Circle No. 345

WOOD TOY

★ Patterns
★ Parts
★ Wheels
★ Many New Patterns to Choose from.
★ Executive toys

SEND $1.00 FOR NEW CATALOG

toys and joys
Box 628 w Lynden, Wash. 98264

Circle No. 465

FREE TOOL CATALOG

Helping You Become a Better Woodworker

highland hardware
Our giant tool catalog gives more than just manufacturer's specs. We provide detailed tool descriptions, useful techniques, as well as a schedule of educational seminars.

Call toll free for FREE catalog
1-888-500-4466

Visit us on the Internet at http://www.highland-hardware.com

Circle No. 870

Quality
MECHANISMS
For Making
WOODEN BARREL

- Pens
- Pencils
- Roller Balls
- Fountain Pens

plus other related items.

Wholesale/Retail

Call or Write:
The Berea Hard Woods Co.
6367 Eastland Rd. Brookpark, Ohio 44142
216-234-7949 *Master Card/Visa*

Circle No. 510

TURN PENS IN 2 MINUTES!
The WoodWrite Microlathe – a revolution in pen and pencil turning. Call, write or fax for details & prices.

WoodWrite Ltd.
2121 Abell Lane, #44
Sparks, MD 21152 USA
Phone: 410-771-4444
Fax: 410-771-4879
TollFree: 1-888-WOODWRITE

Circle No. 2098

QUARTZ MOVEMENT

"Six-Pack"
$18.95 *REDUCED*

INCLUDES;
6 QUARTZ CLOCK MOVEMENTS
6 PAIRS OF 2" BRASS HANDS
6 PAIRS OF 2 1/4" BRASS HANDS
6 BRASS SECOND HANDS
6 SETS HANGERS and HARDWARE

☐ **FREE COLOR CATALOG ONLY**
Or Call Us At 1-800-533-2024

Please choose one shaft length per "Six-Pack"
☐5/16" ☐7/16" ☐11/16" ☐15/16"

Shipping & Handling Included in Continental USA

PRECISION MOVEMENTS
4251 Chestnut Street
Dept. H2/97
Emmaus, PA 18049

25 YEARS OF SERVICING THE CLOCK INDUSTRY

FROM LOG TO LUMBER

with the ***Alaskan Saw Mill*** attachment
(available in 24", 30", 48" and 56" sizes)

As seen in June 97 issue of Wood Magazine

CUT LUMBER ON SITE WITH THE **ALASKAN MKIII:** BEAMS, BOARDS, SIDING AND CUSTOM CUTS.

RIPPING CHAIN AND OILER KITS ALSO AVAILABLE

GRANBERG INTERNATIONAL
PO BOX 425 RICHMOND, CA. 94807-70425
PHONE 510.237.2099
OUTSIDE CA. 800.233.6499
FAX 510.237.1667
E-MAIL granberg@aol.com
http://members.aol.com/granberg/chainsaw/index.htm

Circle No. 52

ONE-MAN SAWMILL

Turns Your Timber Into CASH!

30-Day Free Trial!

Call NOW for FREE FACTS!
1-800-942-4406 ext. SW48
TIMBERKING, INC. Dept. SW48
1431 N. TOPPING, KANSAS CITY, MO 64120

Mail Coupon Today!

Over 1,000 Plans for Woodworkers!

Send $2.00 for new 100 page FULL COLOR Catalog.

Please print clearly

Name _____
Address _____
City _____ State _____ Zip _____

MEISEL
Meisel Hardware Specialties
P.O. Box 70 W
Mound, MN 55364-0070

Circle No. 401

THE SCROLLER'S SUPPLY STORE

Call 1-800-487-2623 Today!

rbindustries
1801 Vine St., Harrisonville, MO 64701
www.rbiwoodtools.com/
GC13

Circle No. 84

For All Your Woodcarving & Sign Carving Needs

Terrco provides a full line of machine carving and sign carving equipment. Beginning models are the T-110 single spindle bench carver and our CM614 single spindle sign carver.

Intermediate models include the K-Star, a two-spindle heavy duty bench model, and the Northstar, a heavy duty floor model available in one to eight spindles.

Our advanced model is our Master Carver series, which is an extremely heavy duty floor model with from eight to forty spindles.

Write or call for more information.

Terrco, Inc.
222 1st Ave. NW
Watertown, SD 57201
USA
(605) 882-3888
Fax (605) 882-0778

Model T-110 Dupli-Carver

Model CM614 Sign Carver

Multi-Spindle Carving Machine

Circle No. 2175

OWN A MACHINE SHOP

The Smithy 3-in-1 lathe-mill-drill gives you all 3 basic machine tools in one easy-to-use benchtop machine. Save time, money. For home or business.

Call for your FREE Info Pak.

FREE Info Pak **1-800-345-6342**
Ask for operator WOODM81

or write **Smithy** Dept. WOODM81 PO Box 1517 Ann Arbor, MI 48106-1517

Circle No. 99

HARDWOODS

Over 100 Quality Hardwoods from Around the World

LUMBER • VENEER • TURNING STOCK

- Timbers from Protected Forests •
- Quantity Discounts •
- Prompt Shipping Arranged Worldwide •
- Custom Milling–Lumber Cut to Size •
- All Inquiries Welcome •

Call or Write for a Free Catalog

- Satisfaction Guaranteed •

Visit us on the World Wide Web
www.woodworkerssource.com
for Specials, Current Prices and Complete Wood Descriptions
e-mail:wood@woodworkerssource.com

1-800-423-2450
WOODWORKERS *Source*
5402 S. 40th St.• Phoenix, AZ 85040

Circle No. 598, 2080

VAN DYKE'S RESTORERS

Supplies for woodworkers and antique restorers!

- Roll top accessories
- Hoosier accessories
- Carvings & moldings
- Furniture components
- Over 1,000 Brass, Glass & Wooden Hardware items
- Much, More

Call or Write For Your FREE Catalog

1-800-843-3320
Dept. 60047 • PO Box 278
Woonsocket, SD 57385

Circle No. 2077

The Japan Woodworker's Catalog is . . .

loaded with the best tools you can get your hands on. In our catalog you will find a huge selection of Japanese saws, waterstones, chisels, planes, carving tools, cutlery and books. Send $2.00 for our catalog and supplements during the next two years.

THE JAPAN WOODWORKER
1731 Clement E-32, Alameda, CA 94501
Phone 1-800-537-7820

Circle No. 190

GREAT ENCOURAGEMENT FOR SHIPWRIGHTS!

All gentlemen shipwrights and able bodied modelists who have a mind to provide for themselves amusement and satisfaction through the traditional craft of ship modeling, an opportunity now offers to acquire, through the minimal cost of one Colonial Dollar ($1.00), a catalog of fine and unique ship model kits, plans, books and fittings from the renowned company of Model Expo located in Hollywood in the State of Florida.

Send $1.00 for a catalog to:

MODEL EXPO, INC.
Dept. WD18, PO Box 229140, Hollywood, FL 33022

Name _____

Address _____

City _____

State _____ Zip _____

Circle No. 1075

SALE - 50% Off!

Complete Cherry Mantel Clock Kit

Kit Includes:
- Cherry Pre-Cut Case
- Quartz Movement
- Dial & Convex Glass
- 5-year Guarantee

ONLY $10.95

6-1/4" x 5" x 2-1/8"

☐ **YES,** Send me [ ] #170371 Clock Kits @$10.95 ea. (Reg. $21.90) Add $4.00 Shipping; Wisc. residents add 5.5% tax.

Order Early! Sale Ends April 30, 1998
Limit three kits per customer

FREE CATALOG INCLUDED
(with order; reg. $2.00)
Over 50 Clock Kits
Quartz Movements
Brass Movements
Dials & Hardware

Call Today! 800-236-7300

The American Clockmaker
P.O. Box 326
Clintonville, WI 54929
Since 1940

The SandDevil

A HOT New Idea For Hand Sanding!

$14.99 plus $3.00 P&H

Quick Change Sanding Block
Uses Standard 3"x 21" Sanding Belts!

- New-easy snap insertion
- Tough thermoplastic rubber
- 1 free sanding belt
- Easy belt rotate & advance
- Multiple angles
- Use even in tight places
- Outlasts sandpaper 12 times

Beloff-Pappas Co.
133 Eaton Ave., Meriden, CT 06451
1-800-974-3557 & Fax 203-235-1343

Circle No. 105

RIP SAW

The Portable Sawmill.

The **"affordable portable"** one man band sawmill. Weighs only 45 lbs. Cuts 20" diameter logs into lumber. Minimum 1/8" to maximum 9" thickness. 14"W x 9"H throat capacity. Write or call for free brochure.
Videos also available.

Better Built CORPORATION
(508) 657-5636
789 Woburn St., Dept. WD12, Wilmington, MA 01887

FREE BROCHURE!

★The Woodworking Shows★
tools • supplies • education

Visit the Show Near You!

• Atlanta	• Harrisburg	• Sacramento
• Baltimore	• Indianapolis	• So. California
• Charlotte	• Kansas City	• St. Louis
• Chicago	• Massachusetts	• Tampa
• Columbus	• Nashville	• Wash., D.C.
• Detroit	• North Jersey	• *plus others!*

Call 1-800/826-8257 for free brochure
Monday - Friday 8:30 am - 5 pm Pacific Time
e-mail: woodshow@earthlink.net

Circle No. 2900

NEW ! WOOD ENGRAVER

* MAKE SIGNS IN MINUTES
* YOUR OWN SMALL BUSINESS
* MAKE MONEY THE FIRST DAY

FULL PKG. $695
FULL PKG-YOUR ROUTER $595

FULL PKG : COMPLETE MACHINE * RYOBI ROUTER * 2" TEMPLATES * ROUTER BIT * DUST ATTACHMENT

WRITE : WOODWORKER MACHINE CO.
1102 NOBLE OAKS DRIVE
SAVANNAH, GA 31406
http://www.coca.net/business/woodworker

Circle No. 2193

FREE WOODWORKING CATALOG!

OUR BIGGEST CATALOG EVER!

From high-tech euro style kitchen hardware to finely crafted humidor components, hardwoods, plans, tools and much more!

Dept. 98018

Call 1-800-403-9736

http://woodworkerstore.com

Since 1954

The Woodworkers' Store

Hardware, Wood, Tools & Know How

Circle No. 965

WOODCRAFTERS OF OKLAHOMA

LARGEST & BEST SELECTION ANYWHERE:

- Turning Tools
- Pens & Pencils
- Turning Blocks & Squares
- Pen Blanks

FREE CATALOG

116 S.E. 74th • Oklahoma City, OK 73149

TOLL FREE 888-333-7513

Circle No. 2195

AMAZING SCROLLSAW FRETWORK PATTERNS

Easy to advanced designs

Clocks
Photo frames
Jewelry boxes
Candle holders
Furniture
Clock movements
Plywood

Silhouettes on Christmas religion farming western nature transportation & more.
Books
Saw blades
Hardwoods

FREE catalog

1-800-470-9090

WILDWOOD DESIGNS
P.O. Box 676-WD
Richland Center
WI 53581

Circle No. 475

Personalize all Your Woodworking Projects

You work hard on a project - Let others know who did it! Put a custom engraved brass nameplate on everything you do and be remembered *forever*.

Gold Silver & Black Brass Avail.

Hand Crafted by Dennis Kandziora

Custom Sizes & Lg. Qty. Disc. Available

Size: 5/8" x 3 1/2"	10 - 24 $4.50 ea	25 - 49 $4.00 ea.	50+ $3.75 ea.
Size: 1/2" x 3"	10 - 24 $4.25 ea.	25 - 49 $3.75 ea.	50+ $3.50 ea.

Please add $4.50 S&H to each order *Orders ship within 2 bus. days Reg UPS*
WI Residents add 5.1% Sales Tax All plates come with brass brads VISA/MC

Put YOUR Signature on Everything! Call for Details

Hand Crafted by

Sign Design Custom Products, Inc. 1-800-274-9161
644 Perkins Dr., Mukwonago, WI 53149 Fax 1-888-374-9161

Circle No. 2005

Build your own murphy bed...

...with the ***Create-A-Bed*** murphy bed mechanism!

- Featured in **Home** magazine's **Safe & Sound House**
- State of the art piston lift system
- Easy to build with basic woodworking skills & tools
- Mechanism includes complete step-by-step instructions, cut sheet and templates
- No floor mounting
- Ten year warranty
- Twin, full or queen

100% Satisfaction Guaranteed... or YOUR MONEY BACK!

Create-A-Bed™

5100 Preston Hwy. Louisville KY 40213
502-966-3852

Visit our website to learn more!
www.wallbed.com

Circle No.1911

Supergrit® SANDPAPER

HOOK & LOOP

4½"	8 Hole	$10.00/50
5"	5 or 8 Hole	$12.50/50
6"	6 Hole	$17.50/50
5"	Solid "E"	$15.00/50
6"	Solid "E"	$18.00/50
12"	Solid "E"	$12.00/6

BELTS—A.O. RESIN

1 x 30	$ .75	4 x 24	$1.10
1 x 42	$ .75	4 x 36	$1.40
3 x 21	$ .85	6 x 48	$3.50
3 x 24	$ .90	6 x 89	$6.20

SHEETS—9" x 11", A.O.

60D, 80D	$14/50
100C	$24/100
120C, 150C	$23/100
180A, 220A	$19/100

3M 4" Diam. Paint & Rust Stripper
Reg. $7.50 ea.
Sale $4.50 ea.
2+ $4.00 ea.

DRUM SANDER
ABRASIVE ROLLS
Hook & Loop
Cloth/Paper
Width 1" to 6"

SAND-O-FLEX
$19.50

Refills $6.50 ea.

PC PROFILE SANDER SUPPLIES

H & L Diamonds $17.50/50
2½" x 5 yd. P.S.A. Rolls $5.00 Ea.

GOLD MIRKA® PSA DISCS
5" & 6" Diam. "C" & "D" wt.
Reg. Price $16—25/100
SALE 10% EXTRA FREE

Grits 60–320

MasterCard VISA

RED HILL CORP.
P.O. BOX 4234
GETTYSBURG, PA 17325

FREE 28 PAGE CATALOG & Incredible close-out sheets.
800-822-4003

Circle No. 1267

S. LaRose, Inc.

If you're building the outsides, we've got the insides! Call or write for our FREE clock parts catalog, #W2

S.LaRose,Inc.
P.O.Box 21208
3223 Yanceyville St.
Greensboro, NC 27420
(910) 621-1936
E-Mail: SLAROSE@worldnet.att.net
www.slarose.com

Circle No. 2375

SENCO

SFN40K1½-2½" Fin.Nail. $369
SLP20 5/8-1-5/8" Brad Nailer Kit $249
SN325+ 6d-12d Framer $369

Makita

2708W 8¼" Table Saw w/Carbide Blade SALE $279
4303C 6 amp Var Spd Jig Saw . $159
9741 Wheel Sander $169
3612C 3hp Pl. Router w/Brake .. $258
AF501 2" Brad Nailer $179
2711 10" Table Saw $499
LS1011 10" Sliding Comp. Saw $399
MAC2000 2 hp Twin Stack Comp. $398
LS1013 10" Dual Slide Comp. ... $577
LS1211 12" Dual Slide Comp. ... $759
6233DWAE 14.4v Cdls w/2 batt $189

BOSTITCH

N60FN Kit Finish Nailer w/ Case & Nails SALE $288

BOSCH

1587AVSK-50 Ltd. Edition 50th Anniversary Jigsaw w/Non-Mar Base & Case $169
3725DVS 5" Random Orbit Sander $145
B1350 1-¾hp 10amp 2hndl Router $119
1295DH Swiftsand Dual Range Sander-Polisher $88
3610K 14.4 V Dbl Battery Drill Kit .. $189
3310K 12 V Driver Drill Kit $169
3915 10" Dual Slide Comp Saw $579
B2300K 12 V Dbl. Batt. Drill Kit $139
1001VSR 3/8" V/S Drill $59
1613EVS 2 hp V/S Plunge Router .. $198
B7001 Detail Sander $89

1-800-262-5482

SAME DAY SHIPPING FREE FREIGHT

HOME LUMBER CO.

C.O.D. P.O. Box 370 Whitewater, WI 53190

DEWALT

DW991K2 14.4 V Double Battery Drill Kit SALE $199

NEW DEWALT BENCH TOPS
DW788 20" Scroll Saw $488
DW733 12" Anti Skip Planer $455
DW708 12" Dual Slide Comp Saw $677
DW744 10" H.D. Table Saw $555
DW412 2 Amp Palm Sander $59
DW621 2 hp V/S Plunge Router .. $218
DW321K "Clic" Jig Saw $159
DW705 12" Compound Miter Saw $349
DW935 14.4v Cordless Trim Saw $149
DW991KS-2 14.4v Drill/Saw Kit .. $348
DW995K 18v ½" Driver Drill Kit ... $228
DW421 Random Orbit Sander $73

ITW Paslode

IM250CT NEW Compact *Trim-pulse* Finish Cdls Kit $519
IM325CT Compact Cdls Finish Kit .. $488
We Have The Largest Assortment of DeWalt & Makita in the USA.

Circle No. 48

WIRELESS DRIVEWAY ALARM

A bell rings in your house anytime someone walks or drives into your place.

- Free Literature -

A complete line of wireless security equipment.

DAKOTA ALERT, INC.

BOX 130, ELK POINT, SD 57025

Ph: 605-356-2772

Circle No. 1914

The Cutting Edge Turner's & Carver's Supply

Lathes by **JET, CarbaTec, & Sherline**
Henry Taylor Turning/Carving Tools
• Power Carving & Wood Burning •
Sorby, Stewart, Glaser Turning Tools
ONEWAY 2436 Lathes, Bowl Chucks, Live Centers, Grinding Jigs
Project Supplies • Books • Videos

Call for Free Catalog

The CUTTING EDGE, A Woodworker's Tool & Supply

7123 SouthWest Fwy
Houston TX 77074
713/ 981-9228
fax 713/ 981-6104

www.cuttingedgetools.com

Circle No. 2180

Heavy Glass Table Tops

FACTORY DIRECT DISCOUNT PRICING

- Table Tops
- Shelves
- Doors
- Display Cases
- Entertainment Centers
- Tempered Glass

TABLE TOPS BY PHONE
SATISFACTION GUARANTEED!

WGB GLASS ■ SHAPES ■ THICKNESSES ■ EDGE DESIGNS

FOR FREE IDEA CATALOG AND PRICE LIST SEND POST CARD TO:

WGB GLASS 19785 W. 12 MILE RD., STE. 357 SOUTHFIELD, MI 48076

TO PLACE ORDERS: CALL 1-800-288-6854

Circle No. 2079

FREE! WOODWORKER'S CATALOG

NEW for 1998!

Over 5500 products to BUILD, REPAIR, RESTORE, REFINISH anything made of wood!

- lumber
- veneers
- inlays
- moldings
- carvings
- tools
- hardware
- glues
- finishes
- books
- plans
- ...and more

CONSTANTINE
Serving Woodworkers Since 1812

2050 Eastchester Rd., Dpt. 35801, Bronx NY 10461

CALL TOLL FREE 1-800-223-8087

Circle No. 20, 110, 210

FREE
Clockmaking Catalog

Handcrafted Clocks Make Treasured Christmas Gifts!

Klockit has a Christmas gift idea for everyone on your list. Our holiday catalog is filled with clock movements, accessories, plans and kits for woodworkers of every skill level.

A handcrafted gift comes from the heart!

1-800-556-2548

Or send for your FREE catalog today.

Name _____

Address _____

City _____

State _____ Zip _____

KLOCKIT Dept. WD18

P.O. Box 636, Lake Geneva, WI 53147
http://www.klockit.com

Circle No. 2335

Glider Swing Plans and Hardware Kits

- Smooth Glider-Rocker Action.
- Unique Twin Ball-bearing Design.
- Easy to Build!

A GREAT WEEKEND PROJECT!

Step-by-step instructions with full-size patterns & professionally drawn diagrams - plus plans for matching chair. Kit includes 16 ball-bearings, nuts, bolts and woodscrews.

Call for a free brochure: 1-800-510-9997.

Woody™ Glider Swings
16630 Longview Dr. • Smithfield, VA 23430

SQUARE DRIVE SCREWS

Simply the Best

Square Drive Beats Driver Slippage
Deep Thread for Super Grip
Hardened Steel for Superior Strength
Made in the US or Canada!

Send $5 for Samples, Catalog, & $5 Off Coupon

McFEELY'S SQUARE DRIVE SCREWS
PO Box 11169 • Dept WD7M
Lynchburg • VA • 24506-1169
Call Toll Free: 1-800-443-7937

Circle No. 2450

WOODLINE ARIZONA, Inc.

P.O. Box 1530 • Payson, AZ 85547

Great Router Bits and Shaper Cutters!

- All Major Credit Cards Accepted
- Shipping is only $3.75 per order
- Most items in stock
- Same-day shipping!!
- 24 hours a day • 7 days a week

1-800-472-6950

FREE NEW catalog with over 100 NEW BITS & CUTTERS!

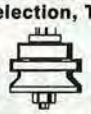
All Bits & Cutters feature: • EUROPEAN CARBIDE • ANTI-KICKBACK DESIGN • SUPER-SLICK FINISH

DOING JOINING? WE'RE JOINING HEADQUARTERS!
Best Prices, Best Selection, Top quality!

NEW **Don't throw those "shorts" away!** Now an afforadable router bit **FINGER JOINER WL-1429** *only* **$39.**

For the Shaper **WL-1580** *was $110. Now only* **$89.**

GLUE JOINTS in 2 sizes.
1/4" shank-up to 3/4" (also is drawer joint cutter) **WL-1430-1** *only* **$24.**
1/2" shank **WL-1430-2** *only* **$24.**
1/2" shank-up to 1-1/4" material **WL-1430** *only* **$35.**



NEW **"V" FACE T & G** router bit for up to 1-1/8" material. **WL-1488** *only* **$30.**

2 PC. SET **"V" FACE T & G** now in 2 sizes for the shaper
3/8" to 5/8" **WL-1571** *only* **$119.**
3/4" to 1" **WL-1572** *only* **$139.**

T & G FLOORING CUTTERS
For the **Router WL-1488-1** *only* **$39.**
For the **Shaper WL-1584** *only* **$59.**

T&G Router bit For 1/4" to 1/2" material **WL-1488-2** *only* **$30.**

Router **bit CORNER LOCK MITRES** in 3 sizes
WL-1420-2 (1/4" shank-up to 5/8" material) *only* **$25.**
WL-1420-1 (1/2" shank-1/2" to 3/4" material) *only* **$30.**
WL-1420 (for material to 3/4" to 1-1/4") *only* **$38.**

NEW **Carbide tipped ROSETTE CUTTERS–cutting width: 2-1/4" $39. 3-1/4" $49.**

Circle No. 1395

KLINGSPOR'S

Sanding Catalogue

Klingspor's Sanding Catalogue uses only Klingspor Abrasives industrial sanding products that are known throughout the furniture and woodworking industries as the premium products for sanding and finishing. These materials will outlast, outperform and outsand any other abrasive product in this business. **Check out these deals!**

DISCS Priced in packages of 5.

Lightweight Paper, Hook & Loop		
Size	**Grit**	**Price**
4½" / 8 holes	100 & finer	$1.90
	80 Grit	$2.05
	60 Grit	$2.10
	Assortment	$2.05
5" / 5 holes	100 & finer	$2.05
	80 Grit	$2.20
	60 Grit	$2.30
	Assortment	$2.20
5" / 8 holes	100 & finer	$2.05
	80 Grit	$2.20
	60 Grit	$2.30
	Assortment	$2.20
6" / 6 holes	100 & finer	$3.00
	80 Grit	$3.15
	60 Grit	$3.35
	Assortment	$3.15
6" / 8 holes	100 & finer	$3.00
	80 Grit	$3.15
	60 Grit	$3.35
	Assortment	$3.15
6" /16 holes	100 & finer	$3.00
	80 Grit	$3.15
	60 Grit	$3.35
	Assortment	$3.15

Stearate Hook & Loop		
Size	**Grit**	**Price**
4½" / 8 holes	100 & finer	$1.60
	80 Grit	$1.65
	60 Grit	$1.75
	Assortment	$1.65
5" / 5 holes	100 & finer	$1.60
	80 Grit	$1.65
	60 Grit	$1.75
	Assortment	$1.65
5" / 8 holes	100 & finer	$1.60
	80 Grit	$1.65
	60 Grit	$1.75
	Assortment	$1.65
6" / 6 holes	100 & finer	$2.25
	80 Grit	$2.35
	60 Grit	$2.50
	Assortment	$2.35
6" / 8 holes	100 & finer	$2.25
	80 Grit	$2.35
	60 Grit	$2.50
	Assortment	$2.35
6" / 16 holes	100 & finer	$2.25
	80 Grit	$2.35
	60 Grit	$2.50
	Assortment	$2.35

Heavy E-weight paper, Hook & Loop		
Size	**Grit**	**Price**
4½" / 8 holes	100 & finer	$2.75
	80 Grit	$3.00
	60 Grit	$3.35
	Assortment	$3.00
5" / 5 holes	100 & finer	$2.75
	80 Grit	$3.00
	60 Grit	$3.35
	Assortment	$3.00
5" / 8 holes	100 & finer	$2.75
	80 Grit	$3.00
	60 Grit	$3.35
	Assortment	$3.00
6" / 6 holes	100 & finer	$3.90
	80 Grit	$4.50
	60 Grit	$4.95
	Assortment	$4.50
6" / 8 holes	100 & finer	$3.90
	80 Grit	$4.50
	60 Grit	$4.95
	Assortment	$4.50
6" / 16 holes	100 & finer	$3.90
	80 Grit	$4.50
	60 Grit	$4.95
	Assortment	$4.50

Cloth PSA Discs		
Size	**Grit**	**Price**
5"	100 & finer	$3.25
	80 Grit	$3.40
	60 Grit	$3.55
	50 Grit	$3.75
	40 Grit	$3.95
	36 Grit	$4.15
6"	100 & finer	$4.65
	80 Grit	$4.90
	60 Grit	$5.20
	50 Grit	$5.55
	40 Grit	$5.85
	36 Grit	$6.20

Paper PSA Discs		
Size	**Grit**	**Price**
5"	100 & finer	$1.05
	80 Grit	$1.05
	60 Grit	$1.15
6"	100 & finer	$1.30
	80 Grit	$1.35
	60 Grit	$1.45

Assortments include one each of 60, 80, 120, 150 & 180 grit.

SHEETS Priced in packages of 5.

Silicon Carbide Wet/Dry Sheets		
Size	**Grit**	**Price**
9" x 11	220 & Finer	$2.40
	180 Grit	$2.60
	150 Grit	$2.75
	120 Grit	$2.95
	100 Grit	$3.40
	80 Grit	$3.90
4½" x 5½"	220 & Finer	$0.70
	180 Grit	$0.80
	150 Grit	$0.85
	120 Grit	$0.90
	100 Grit	$1.00
	80 Grit	$1.15
3⅔" x 9"	220 & Finer	$0.95
	180 Grit	$1.05
	150 Grit	$1.10
	120 Grit	$1.20
	100 Grit	$1.35
	80 Grit	$1.55

Aluminum Oxide Cloth		
Size	**Grit**	**Price**
9" x 11	100 & Finer	$4.90
	80 Grit	$5.25
	60 Grit	$6.35
	50 Grit	$6.80
	40 Grit	$7.30
4½" x 5½"	100 & Finer	$1.45
	80 Grit	$1.55
	60 Grit	$1.90
	50 Grit	$2.00
	40 Grit	$2.15
3⅔" x 9"	100 & Finer	$1.95
	80 Grit	$2.10
	60 Grit	$2.50
	50 Grit	$2.70
	40 Grit	$2.90

Aluminum Oxide Paper		
Size	**Grit**	**Price**
9" x 11	100 & Finer	$1.75
	80 Grit	$1.75
	60 Grit	$2.00
4½" x 5½"	100 & Finer	$0.45
	80 Grit	$0.55
	60 Grit	$0.60
3⅔" x 9"	100 & Finer	$0.65
	80 Grit	$0.70
	60 Grit	$0.75

Stearate		
Size	**Grit**	**Price**
9" x 11	100 & Finer	$2.17
	80 Grit	$2.50
	60 Grit	$2.80
4½" x 5½"	100 & Finer	$0.63
	80 Grit	$0.70
	60 Grit	$0.84
3⅔" x 9"	100 & Finer	$0.84
	80 Grit	$0.98
	60 Grit	$1.12

$29 BOX OF BELTS

You'll receive 36 Industrial Sanding Belts. That's only $.80 per belt! Six grit packs each containing 6 belts. (4" belt packs contain 5 belts.)

Choose a Size:
2½" x 16", 3" x 18", 3" x 21", 3" x 24", 4" x 21" **or** 4" x 24"

You'll Get:
1 Pack: X Coarse (36-40 Grit), **1 Pack:** Coarse (50-60 Grit), **1 Pack:** Medium (80-100 Grit), **1 Pack:** Med/Fine (120-150 Grit), **1 Pack:** Fine (180-220-240 Grit), **&1 Pack:** X Fine (280-320 Grit)

10 POUND BARGAIN BOX

This is not your typical "grab bag" offer - what you get is all useable. No trash involved. You get 10 pounds of an equal amount of coarse, medium & fine grit sandpaper pieces. Each piece is of a usable size and is first quality sanding product.

ONLY $19.95

Call today for your free 80 page catalog

1-800-228-0000

Fax 1-800-872-2005

P.O. Box 3737, Hickory, N.C. • 28603-3737

www.sandingcatalog.com

AMERICAN EXPRESS DISCOVER MasterCard VISA

Circle No. 1240

WOODs CLASSIFIED MART

For rates: 1-800/424-3090 Fax 312/464-0512

AUTOMOTIVE

SEIZED CARS FROM $175. Porsches, Cadillacs, Chevys, BMW's, Corvettes. Also Jeeps, 4WD's. Your Area. Toll Free 1-800/218-9000 Ext. A-14094 for current listings.

FINISHING/RESTORATION

LINE BOXES EASILY. Spray-on suede. 31 colors. Free Brochure. DonJer Products, Ilene Court-Bldg. 8W, Bellemead, NJ 08502. 1-800/336-6537.

HELP WANTED

EASY WORK! EXCELLENT PAY! Assemble Products at Home. Call Toll Free 1-800-467-5566 EXT. 11856.

INSTRUCTION/EDUCATION

GET OUT OF DEBT! Free consultation. Debts consolidated. Harassment calls stopped. Payments lowered, interest reduced. Non-profit agency. Prompt professional service. GSCCC 1-800-99-BILLS. Lic./Bonded.

OF INTEREST TO ALL

UNIQUE WOOD WORKER'S T-SHIRTS! Great gift item for any wood worker! See website: http://www.infomagic.com/~t4wood or call 1-888/779-1167.

PLANS/KITS/PATTERNS

HEXAGON TANK TERRARIUM! COMPLETE, EASY-TO-FOLLOW, PROFESSIONAL PLAN. Beautiful Fine Furniture Quality! Bill of materials and exploded drawings assist the woodworker. Send $14.95 to: Media•Link, c/o Michael Arman, Dept. A45, 1208 Logan Ave., Lafayette, IN 47905.

TOOLS/EQUIPMENT

STRAIGHT LINE LUMBER FAST using your shaper or woodmaster or table saw. Three different easy build plans. Satisfaction guaranteed. $9.95: Sun Hardwoods, PO Box 142, Mountain Grove, MO 65711.

DRY YOUR OWN LUMBER. Ebac's user friendly dry kilns 200BF-40,000BF. Mix species in same load. Great 3-year warranty. Over 6000 systems worldwide. Call Today. 1-800/433-9011.

BAND SAW BLADES: Low tension Swedish Silicon Steel "TIMBERWOLF" bands. 1/16" thru 1 1/4". FREE CATALOG 1-800/234-7297. Email-timberwolf2@worldnet.att.net HOME PAGE-timberwolf1.com

CUSTOM BRANDING IRONS as low as $56.25! Great Christmas idea. You're proud of your work; identify it. Any design, logo, signature. VISA/MC. : **BrandNew** 1-800/964-8251.

WOOD PARTS/SUPPLIES

BRIAR PIPE-MAKING SUPPLIES. Briar wood, tools, instruction book. Free catalog - PIMO Co., Box 2043, Manchester, VT 05255, 802/362-3371.

FREE TOOL CATALOG!

Your Best Work Starts With Us!

With over 4,000 of the finest woodworking tools in the world, Woodcraft can help you work more efficiently and skillfully than ever. Call for your Free copy today.

1-800-542-9115

WOODCRAFT®

Helping You Make Wood Work™

www.woodcraft.com

210 Wood County Industrial Park Dept. 98WIO1S
PO Box 1686, Parkersburg, WV 26102-1686

Circle No. 955

PRODUCTS THAT PERFORM

SHOP TESTED

Print this article

Dremel Contour Sander rivals higher-priced models

Woodworkers responded enthusiastically to the introduction of the Porter-Cable model 9444 Profile Sander a few years ago. It could sand into tight corners like a detail sander, and it could also smooth molded profiles. Now, Dremel has a lower-priced tool that performs similar functions.

The Dremel Contour Sander has a variable-speed motor and a reciprocating, in-line stroke similar to the P-C machine (you can buy the P-C in a single- or variable-speed version). But, rather than use adhesive-backed or hook-and-loop sandpaper, Dremel developed a sandpaper tube that slips over the contour pad. The pad and tube then slide into a clip that holds the tube-wrapped pad in place. If the paper loads up, you simply unclip the pad, rotate the sandpaper tube to an unused section, and snap the pad and tube back into place. The system worked without a hitch.

Sold as a kit, the sander comes with 10 of the 18 available contour pads, three sandpaper tubes, and a diamond-shaped hook-and-loop sanding pad in a hardside case. Additional contour pads and sandpaper tubes in five grits sell separately.

The Contour Sander works aggressively, and its compact design makes it comfortable to hold. I found only one minor problem. The detail pads used for sanding beads flex too much to retain their shape under pressure, and can cut ridges in your work if you're not careful. The Contour Sander is not built as ruggedly as the P-C machine, but it's a great little tool if you don't want to invest a lot of money in a sander you won't use every day.

—Tested by Bob McFarlin

PRODUCT SCORECARD

Contour Sander Kit

Performance	★ ★ ★ ★ ☆
Price	About $79
Value	★ ★ ★ ★ ★

Dremel, 4915 21st St., Racine, WI 53406-9989. Call 800/437-3635 or visit http://www.dremel.com

Continued on page 98

PORTER-CABLE

BN125	18 GA. BRADNAILER KIT 5/8" - 1 1/4"	67
BN200	18 GA. BRAD NAILER KIT 3/4" - 2"	134
CF1400	1 HP PANCAKE COMPRESSOR	192
CF1540	1 1/2 HP SIDE STACK COMPRESSOR	292
CF240	2 HP SIDE STACK COMPRESSOR	314
DA250	15 GA. ANGLE FINISH NAILER KIT 1 1/4" - 2 1/2"	199
DA250A	15 GA. ANGLE FINISH NAILER KIT 1 1/4" - 2 1/2"	234
FN250A	16 GA. FINISH NAILER KIT 3/4" - 2 1/2"	188
FR350	FRAMING NAILER W/CASE 3 1/2" CAPACITY	289
NS100	NARROW CROWN STAPLER KIT 1/2" - 1"	94
NS150	NARROW CROWN STAPLER KIT 1/2" - 1 1/2"	157
100	7/8 HP ROUTER	107
314	4 1/2" TRIM SAW	152
330	SPEED BLOCK FINISHING SANDER	65
332	QUIKSAND 5" RNDM ORB W/STIKIT PAD	58
333	QUIKSAND W/HOOK & LOOP, DUSTLS	64
334	QUIKSAND W/STIKIT, DUSTLESS	64
335	6" QUICKSAND W/REVERSIBLE PAD	84
340	1/4 SHT FIN SANDER W/DUST P/U	54
347K	7 1/4" FRAMERS SAW, 15 AMP WITH CASE	128
352VS	3" X 21" BELT SANDER DUSTLESS W/VAR SP	164
360	3" X 24" BELT SANDER W/DUST BAG	214
360VS	3" X 24" BELT SANDER, VS WITH BAG	228
361	3" X 24" BELT SANDER	203
362	4" X 24" BELT SANDER W/DUST BAG	223
362VS	4" X 24" VS DUSTLESS BELT SANDER	238
505	1/2 SHT FIN SANDER	138
556	BISC JOINER W/CASE & TILT FENCE	136
690	1 1/2 HP ROUTER	136
691	1 1/2 HP "D" HANDLE ROUTER	162
693PK	1 1/2 HP PLUNGE ROUTER, FIXED BASE, CASE	196
693PKX	693PK W/EDGE GUIDE & TEMP GUIDE SET	229
697	ROUTER TABLE WITH 1 1/2 H P MOTOR	232
698	ROUTER TABLE ONLY	134
743K	7 1/4" FRAMERS SAW, LEFT SIDED WITH CASE	128
5116	OMNI JIG	268
6931	PLUNGE ROUTER BASE	82
7116	NEW 24" OMNIJIG	299
7335	5" RANDOM ORBIT SANDER	134
7336	6" RANDOM ORBIT SANDER	137
7518	3 1/4 HP FIXED BASE ROUTER-5 SPEED	282
7519	3 1/4 HP FIXED BASE ROUTER-1 SP	254
7538	3 1/4 HP PLUNGE ROUTER-1 SPEED	258
7539	3 1/4 HP PLUNGE ROUTER-5 SPEED	278
7800	DRYWALL SANDER	338
7810	POWER TOOL TRIGGERED WET/DRY VAC	266
9118	PORTA PLANE KIT W/CASE, CRBD BLD	234
9125	3 1/4" PLANER WITH CASE	139
9444	PROFILE SANDER KIT WITH ACCESSORIES	96
9444VS	VAR. SPEED PROFILE SANDER KIT	112
9737	RECIP TIGER SAW, 9.6A, QUICK CHNG CHUCK	159
9830	9.6V CORDLESS KIT W/2 BATTERIES, CASE	144
9862	12V CORDLESS KIT W/2 BATTERIES, CASE	174
9862F	12V KIT W/2 BATT, CHARGER & FLASHLIGHT	184
9863	12V BACK HANDLE KIT W/2 BATTERIES	178
9872	14.4V CORDLESS DRILL KIT W/2 BATT. & CASE	198
9873	14.4V BACK HANDLE KIT W/2 BATTERIES	206
97310	LAMNT TRIMMR KIT W/3 BASES & CS	188
97549	JIG SAW W/CASE & 3 BLADES	139

Panasonic

EY3502EQMKW	12V CORDLESS METAL SAW	288
EY3503FQKW	12V WOOD SAW KIT W/2 BATT	249
EY6100EQKW	12V PREDATOR CORDLESS KIT W/KEYLESS CHUCK, 2 IRONMAN BATTERIES, 15 MIN. CHARGER & CASE, VSR	178
EY6230FQKW	15.6V CORDLESS KIT COMPLETE	208

Jorgensen

ITEM	JAW LENGTH	OPEN CAP	OUR PRICE EACH	BOX OF 6
STYLE 37 2 1/2" THROAT 1/4" x 3/4"				
3706	6"		6.00	32.50
3712	12"		6.50	36.95
3718	18"		7.50	40.75
3724	24"		7.95	43.50
3730	30"		8.80	47.75
3736	36"		9.95	53.95

PONY CLAMP FIXTURES

#50	3/4" BLACK PIPE CLAMPS	8.10
	BOX OF 12 $91.95	
#52	1/2" BLACK PIPE CLAMPS	6.95
	BOX OF 12 $74.75	

PONY SPRING CLAMPS - 3201HT 1" ... 1.35 3202HT 2" .... 1.89 3203HT 3" 3.99

Milwaukee

0415-21	12V KYLS CDLS DRILL KIT W/2 BAT, CS	189
6490-6	10" MITER SAW	264
6494-6	10" CMPND MITER SAW W/CARB BLADE	314
6496-6	*NEW* 10" SLIDE COMPOUND MITER SAW	565
6497-6	10" SLIDE COMPOUND SAW W/ACCS	629
6537-22	SUPER SAWZALLW/QUIKCHANGE CHUCK	175

ALL CHECKS WILL BE HELD 10 BUSINESS DAYS
WE ACCEPT VISA, MASTERCARD, DISCOVER, & AMERICAN EXPRESS

INTERNATIONAL TOOL CORPORATION ©

BUSINESS HOURS: MON-FRI 8-5 PM EST/ SATURDAY: 9-12 EST

•2590 DAVIE RD., DAVIE FLORIDA 33317 • FREE FREIGHT & SAME DAY SHIPPING

FAX US YOUR ORDER AT 1-954-792-3560

ON MOST UPS ORDERS OVER $50 MINIMUM PURCHASE WITHIN THE CONTIGUOUS U.S.A.

1-800-338-3384

VISIT OUR WEB SITE AT HTTP://WWW.INTERNATIONALTOOL.COM

GIFT CERTIFICATES AVAILABLE - QUANTITIES LIMITED - NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS - PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BOSCH

1003VSR	3/8" VSR DRILL W/KEYLESS CHUCK	76
1194VSR	1/2" VSR, 2 STAGE HAMMER DRILL	148
1274DVS	3" X 21" VS DUSTLESS BELT SANDER	168
1275DVS	3" X 24" VS DUSTLESS BELT SANDER	213
1276DVS	4" X 24" VS DUSTLESS BELT SANDER	228
1295DH	5" RANDOM ORBIT SANDER	82
1370DEVS	6" VS DSTLS RNDM ORB SNDR	246
1584VS	CLIC BARREL HANDLE JIG SAW, VS	142
1584VSW	1584VS JIG SAW W/CASE & 10 BLADES	159
1587AVSK-50	50TH ANNIV. JIG SAW KIT W/13 BLADES	156
1587DVS	DUSTLESS VAR. SPEED JIG SAW	177
1587VS	TOP HANDLE JIG SAW, VAR SP	142
1604A	1 3/4 HP ROUTER W/CASE & ROUTER PAD	144
1609AKX	DELUXE INSTALLERS KIT W/4 BASES	229
1613EVS	2 HP VAR SP PLUNGE ROUTER	198
1613EVSK	1613EVS W/RA1051 DELUXE EDGE GUIDE	208
1613EVSKX	1613EVS, EDGE GUIDE, TEMP GUIDE KIT	229
3107DVS	5" RANDOM ORBIT SANDER, VS	98
3107DVSK	5" RANDOM ORBIT SANDER WITH CASE	114
3725DVS	5" DUSTLESS VS RANDOM ORBIT SANDER	144
3727DVS	6" DUSTLESS VS RANDOM ORBIT SANDER	149
3272AK	3 1/4" PLANER KIT WITH CASE	118
3296K	3 1/4" PLANER KIT WITH CASE	178
3310K	12V CRDLS T HANDLE W/2 BAT, CS & CHRG	174
3610K	14.4V CDLS DRILL KIT W/2 BATT	194
3915	10" SLIDE COMPOUND MITER SAW	538

BIESEMEYER

78-900	50" COMMERCIAL FENCE SYSTEM	324
78-930	28" HOME SHOP FENCE SYSTEM	244
78-931	40" HOME SHOP FENCE SYSTEM	254
78-935	52" HOME SHOP FENCE SYSTEM	274
78-985	T-SQUARE CUT OFF SAW STOP	74.95

SKIL

HD77	7 1/4" WORM DRIVE CIRCULAR SAW	159
HD77M	7 1/4" MAGNESIUM WORM DRIVE SAW	169
HD1605-02	BISCUIT JOINER	134
3400	10" TABLE SAW W/CARB BLADE & STAND	198

PERFORMAX PRODUCTS, INC.

16-32 PLUS	16"-32" BENCH DRUM SANDER	899.00
22-44 PRO	22" PRO DRUM SANDER	1799.00
SUPERMAX 25x2	25" DUAL DRUM SANDER	3299.00
SUPERMAX37x2	27"DUAL DRUM SANDER	3999.00

BOSCH

Model 1587AVSK-50 50th Anniversary Jig Saw Kit w/ 13 blades **$156.00**

SPECIAL

International Tool Offer - The first 100 orders from this ad get this WOOD Magazine plan *FREE!*

SENCO

SKS	NARROW CROWN STAPLER	274
SLP20	BRAD NAILER W/CASE 5/8"-1 5/8" CAP	278
SFN40	FINISH NAILER 1 1/4"-2 1/2" CAP	389

HITACHI

C7SBK	7 1/4" CIRCULAR SAW WITH CASE	102
C8FB	8 1/2" SLIDE COMPOUND MITER SAW	456
C10FC	10" COMPOUND MITER SAW	194
C10FS	10" SLIDE COMPOUND MITER SAW WITH $50 FACTORY REBATE	738
M12V	3 HP VAR SPEED PLUNGE ROUTER INCLUDES $15 FACTORY REBATE	238
NR83A	FULL HEAD STRIP NAILER, 2 - 3 1/2 CAP	388
P20SB	3 1/4" PLANER	79
SB75	3" X 21" 2 SPEED BELT SANDER	139
TR12	3 HP PLUNGE ROUTER	158

POWERMATIC

13	6" X 89" EDGE SANDER W/3 BELTS	629
14	OSCILLATING SPINDLE SANDER W/3 SPINDLES	295
15	15" PLANER W/ FREE REPLACEMENT KNIVES	1295
24	2 HP SHAPER W/1/2" ROUTER BIT ATTACHMT	995
44	14" BAND SAW, 1 HP, 1 PH W/3 BLADES	645
54	6" JOINTER W/ENCLSD STAND & XTRA KNIVES	545
60	8" LONG BED JOINTER	1775
64	1 1/2 HP TBL SAW W/ACCU FENCE W/CARB BLD	745
64L	1 1/2 HP TBL SAW W/50" ACCU FNC W/CARB BD	845
66	3 HP, 1 PH 10" T.A. SAW W/50" FENCE	1995*
66	5 H P, 1 PH 10" T.A. SAW W/50" FENCE	2095*
73	1 1 /2 HP DUST COLLCTR W/CLOTH LOWR BAG	398
75	3 HP DUST COLLECTOR W/LOWR CLOTH BAGS	675
84	COMBIN. BELT/DISC SANDER W/XTRA PAPER	445
1170	17" DRILL PRESS W/MORTISING ATTACHMT	399
3520	NEW WOOD LATHE	3495

INCLUDES ACCESSORY PACKAGE & $200 U.S. SAVINGS BOND

RYOBI

AP12	12" PORT. PLANER W/EXTRA BLADES	369
DBJ50	DETAIL BISCUIT JOINTER	68
DC500K	DETAIL CARVER KIT	62
DS2000K	2 SP DETAIL SANDR W/CS & ACCYS	62
HT20VSK	MULTI ROTARY TOOL W/CS & ACCYS	45
ML618	18" WOOD MINI LATHE	199
OSS450	OSCILLATING SPINDLE SANDER	149
SC165VS	16" VS SCROLL SAW	164
WDS1600	WIDE DRUM SANDER	564

BESSEY

		BOX OF 5 (EACH)	PRICE (EACH)
K3.512	12" K BODY CLAMP	28.95	30.95
K3.524	24" K BODY CLAMP	31.95	34.95
K3.531	31" K BODY CLAMP	34.95	36.95
K3.540	40" K BODY CLAMP	38.95	41.95
KP BLOCKS	FOR USE WITH K BODY CLAMPS		24.95
TGJ2.506	6" BAR CLAMP, 2 1/2" THROAT		8.95
TGJ2.512	12" BAR CLAMP, 2 1/2" THROAT		9.95
TGJ2.518	18" BAR CLAMP, 2 1/2" THROAT		10.95
TGJ2.524	24" BAR CLAMP, 2 1/2" THROAT		11.95
TGJ2.530	30" BAR CLAMP, 2 1/2" THROAT		13.45
TGJ2.536	36" BAR CLAMP, 2 1/2" THROAT		14.95
VAS23	VARI ANGLE STRAP CLAMP		39.00
WS3	ANGLE CLAMP		20.95

PORTER-CABLE

Model 693PKX 1 1/2 hp router w/2 bases, edge guide, template guide kit, & case **$229.00**

NEW LOW PRICE $168

MSXE-636-2 OSCILLATING TRIANGULAR SANDER

INCLUDES CASE & PAPER ASSORTMENT

FEIN TURBO VAC $248.00

AIRY

0241NK	18 GAUGE BRAD NAILER 3/8"-1 9/16" WITH CASE & 5000 NAILS	96
0250NK	18 GAUGE BRAD NAILER 3/4"-2" W/CASE & 5000 NAILS	160
0232NK	18 GA BRAD KIT 3/8"-1 1/4"WITH CASE	68
0565T	ANGLE FINISH NAILER 1"-2 1/2"	202
0626NK	NARROW CROWN 1/4" STAPLER 1/2"-1" WITH CASE & 5000 STAPLES	103
EZ-1	SHOOTS 1/4", 3/8", 1/2" CRN STAPLES & BRADS, 5/8" CAP, W/CASE & FASTNERS	96
EZ-2	SHOOTS BOTH BRADS & STAPLES	138

Makita

1912B	4 3/8"PLANER	199
3901	BISCUIT JOINER	204
5007NBK	7 1/4" CIRC SAW W/CS & BLADE	124
6095DWE	9.6V CDLS DRILL KIT W/2 BATT	124
6019DWE	7.2V CDLS DRILL KIT W/2 BATT	95
6213DWAE	12V CORDLESS KIT W/ 2 BATTERIES	169
6233DWAE	14.4V CORDLESS KIT W/2 BATTERIES	194
BO5001	5" RANDOM ORBIT SANDER	67
DA391DW	9.6V ANGLE DRILL KIT	178
LS1011	10" COMPOUND MITER	428
LS1013	10" DUAL COMPOUND MITER SAW	566
LS1211	12" COMPOUND MITER	778
N1900B	3 1/4" PLANER	138

DELTA

$100 REBATE ON ALL UNISAWS THRU 12/31/97

11-990	12" DRILL PRESS	183
14-650	HOLLOW CHISEL MORTISER	238
17-900	16 1/2" DRILL PRESS, 3/4 HP, 12 SPD	398
22-540	12" BENCH TOP PLANER	328
22-560	*NEW* 12" PORTABLE PLANER	389
23-710	*NEW* SHARPENING CENTER	174
28-185	BENCH TOP BAND SAW	167
31-050	1" BELT SANDER	72
31-080	1" BELT/5" DISC SANDER	88
31-280	6" BELT/12" DISC DANDING CENTER	799
31-460	4" BELT/6" DISC SANDER	124
31-695	6" BELT/9" DISC SANDER	308
31-780	B.O.S.S. OSCILLATING SPINDLE SANDR	193
33-890	12" RADIAL ARM SAW	1599
33-990	10" RADIAL ARM SAW	809
34-182	TENONING JIG	89
36-250	10" SLIDE COMPOUND MITER SAW	498
36-800	GREAT WHITE UNISAW AFTER REBATE	1599
37-070	*NEW* 6" VS BENCH JOINTER	264
37-350A	8" PRECISION JOINTER, 1 1/2 HP	1695
40-540	16" VS SCROLL SAW	188
40-650	Q-3 VAR SPEED SCROLL SAW	489
43-355	HEAVY DUTY WOOD SHAPER	809
46-701	12" VS WOOD LATHE WITH STAND	498

DeWALT

GET A FREE COOLER WITH EACH DEWALT BENCHTOP TOOL PURCHASED!

DW321K	TOP HANDLE JIG SAW KIT	162
DW359K	7 1/4" CIRCULAR SAW W/CASE	128
DW411	1/4 SHEET SANDER	57
DW420	5" RANDOM ORBIT SANDER, PSA	68
DW421	5" DSTLS RNDM ORB SANDER, VELCRO	69
DW423	5" VS DUSTLS RANDOM ORBIT SANDER	93
DW431	3" X 21" DSTLS BELT SANDER VAR SP	183
DW443	6" ROS SANDER VAR SP, VELCRO	139
DW610	1 1/2 HP ROUTER, 9 AMP	147
DW615	1 1/4 HP PLUNGE ROUTER, VAR SP	162
DW621	2 HP VS DSTLS PLUNGE ROUTER	214
DW625	3 HP HVY DTY PLUNGE RTR, VAR SP	268
DW673K	7/8 HP LAMINATE TRIMMER KIT	185
DW675K	PLANER KIT, 7.2 AMP W/STEEL CASE	159
DW682K	BISCUIT JOINER KIT	192
DW705	12" MITER SAW W/CARB BLADE	357
DW708	*NEW* SLIDING COMP. MITER SAW	667
DW733	*NEW* 12 1/2" PORTABLE PLANER	446
DW744	10" PORTABLE TABLE SAW	539
DW788	*NEW* 20" VAR. SPEED SCROLLSAW	479
DW935K	14.4V CDLS CIRCULAR SAW KIT	228
DW936K	18V CORDLESS CIRCULAR SAW KIT	244
DW972K2	12V CRDLS KIT/W BATTERY & CS	178
DW991K2	DW991K WITH TWO BATTERIES	208
DW991KS2	14.4V CDLS DRILL & CIRC SAW KIT	338
DW995K	18V 1/2" DRILL W/BATT, CHRGR & CS	224
DW995KS2	18V DRILL & SAW COMBO KIT	358
DW997K	18V HAMMER DRILL KIT, 1/2" CHUCK	244

freud

TR215	8 1/2" COMPOUND SAW	238
JS100	BISCUIT JOINER	94
JS102	BISCUIT JOINER W/VAR. ANGLE FENCE	118
FT2000E	3 hp PLUNGE ROUTER W/$30 REBATE	204
EB100	EDGE BANDING SYSTEM	214
F410	10" X 40T QUIET BLADE	48
F810	10" X 80T QUIET BLADE	73
LM72M010	10" X 24T FLAT TOP RIP BLADE	36
LU82M010	10"X 60T CROSSCUT/RIP BLADE	44
LU84M010	10" X 50T ATB COMBO BLADE	40
LU85M010	10" X 80 T ATB FOR MIRROR FINISH!	58
LU87M010	10" X 24T RIP BLADE THIN KERF	42
LU88M010	10" X 60T CROSSCUT THIN KERF	48
LU89M010	10" X 72T TCH NON FERROUS METAL	57
LU92M010	10" X 80T TCH - BEST FOR LAMINTS	59
LU98M010	10" X 80 T TCH LAMINATES OR WOOD	67
SD308	8" SAFETY DADO WITH CASE	116
SD508	*NEW 8" SUPER DADO SET*	167
SD608	DIAL-A-WIDTH DADO	198
TK206	10" X 24T THIN KERF RIP BLADE	28
TK406	10" X 60T THIN KERF CROSSCUT	36
TK806	10" X 80T THIN KERF CROSSCUT	47
TK906	10" X 50T THIN KERF COMBO	34

FedEx Federal Express — Most tools under 70 lbs. shipped Fed Ex Express Service for $9.00... call for details!

STEVE WALL LUMBER CO.

Quality Hardwoods and Woodworking machinery For The Craftsman and Educational Institutions

Ash	4/4	Select	2.15		$ 73.00
Basswood	4/4	Select	1.90		$ 59.00
Birch	4/4	Select	2.30	UPS	$ 77.00
Butternut	4/4	1C	2.00		$ 65.00
Cherry	4/4	Select	3.60	Specials	$ 94.00
Hickory - Pecan	4/4	Select	1.95		$ 67.00
Mahogany (Genuine)	4/4	Select	3.70		$ 94.00
Maple (Hard)	4/4	Select	2.80		$ 81.00
Maple (Soft)	4/4	Select	2.20		$ 68.00
Poplar	4/4	Select	1.55		$ 60.00
Red Oak	4/4	Select	2.35		$ 76.00
Walnut	4/4	Select	3.25		$ 91.00
White Oak	4/4	Select	2.35		$ 75.00
Cedar (Aromatic Red)	4/4	1C+Btr.	1.60		$ 62.00
Cypress	4/4	Select	2.20		$ 70.00
White Pine	4/4	F.G.	1.10		$ 51.00
Yellow Pine	4/4	Clear	1.70		$ 61.00

Above prices are for 100' quantities of kilndried rough lumber sold by the Bd. Ft. FOB Mayodan, NC. Call for quantity discounts. Other sizes and grades available.

Above prices are 20 bd. ft.bundles of clear kilndried lumber 3"-10" wide • 3'-7' long (Random widths & lengths) Surfaced 2 sides or rough. Delivered UPS prepaid in the Continental U.S.

CUSTOM CABINET DOORS
Custom Raised Panel Doors and 1 Piece MDF Now Available.

4/4 Log Run Walnut 100 Bdft. $145

STEVE H. WALL LUMBER CO.
BOX 287
MAYODAN, N.C. 27027
910-427-0637
1-800-633-4062
FAX 910-427-7588

Send $1.00 For Lumber Catalog
Prices Subject to Change Without Notice

Circle No. 592

CLEAR THE AIR
With Top Rated PSI Dust Collection Systems!

1997 WOOD MAGAZINE EDITORS' CHOICE TOP TOOL™ TOP VALUE™ WOOD MAGAZINE APRIL 1997 ISSUE

*SUPER DC250 DUST COLLECTOR
- Powerful 2-1/2 hp motor
- 1350 CFM capacity

Our most powerful system is perfect for multiple machine and long runs. It's great for any home or commercial shop!

With 5 Micron Super High Filtration Bags!

SALE PRICE $354.95 F.O.B

*DC3-5 PORTABLE DUST COLLECTOR/AIR HANDLER
- 1-1/2 hp motor • 750 CFM

FREE! 8' HOSE $12 Value

Compact but powerful, this lightweight 50 lb. portable unit can be moved to the job or mounted as an air handler!

With 5 Micron Super High Filtration Bag!

SALE PRICE $214.95 UPS $14

*DC1B-5 DUST COLLECTOR
- Efficient 1 hp motor
- 700 CFM capacity

FREE! 8' HOSE $12 Value

Our most popular system connects to almost any machine! The "Y" outlet allows two 4" connections.

With 5 Micron Super High Filtration Bags!

SALE PRICE $219.95 UPS $22

These models include:
5 Micron Super High Filtration Bags! Guaranteed to capture the finest sawdust, powders, paint and cement dusts. A special glazed interior material prevents clogging. 5 micron mesh captures particles 1/6th the size of those captured by other bags.

NEW! PSI DUST COLLECTOR ACCESSORIES

QUICK DISCONNECT

Quickly connect your hose to a 4" O.D. fitting. 4" I.D. x 4" O.D.
#D4X4JW .....**$7.95** UPS $4

"CYCLONE" DUST SEPARATOR

for 1 H.P. to 2-1/2 H.P. dust collectors

SALE PRICE $269.95 UPS $17
#CYCLONE

"LONG RANGER II" DUST COLLECTOR SWITCH

Turn on your dust collector from anywhere in your shop.
#LR110 110V system....**$59.95**
#LR220 220V system....**$69.95** UPS $4

30 DAY MONEY BACK GUARANTEE!

Penn State Industries

2 YEAR WARRANTY 1 YEAR ON MOTOR

Order Toll Free **1-800-377-7297**

VISIT US ON THE WEB!

2850 Comly Road, Philadelphia, PA 19154 • www.pennstateind.com

Circle No.75

WAGNER

Shopline L609 Moisture Meter

A Great Holiday Gift!

- Wagner's Proven Pin-Free Electromagnetic Wave Technology
- Easy To Read Led Display
- Pocket Size
- Narrow Sensor Ideal For Testing Moulding and Trim

It's So Easy to Use!

WAGNER ELECTRONICS

"The Moisture Meter People"

1-800-944-7078

326 Pine Grove Road
Rogue River, OR 97537
Tel: (541) 582-0541
Fax: (541) 582-4138

© 1997 Wagner Electronic Products, Inc.

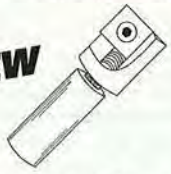
Circle No. 1285

Her-Saf® Router Bits
Made in the USA

Reverse Helix Carbide Cutter
Screw-on for Quick Change
Available from 1/8" to 1-1/2"

Insert Router Bits

NEW



FREE Catalog
1-800-553-9344

Hands Free Clamping

A Flexible and Essential Tool For Every Shop

Her-Saf®
AIR-VAC-CLAMP

Safranek Enterprises, Inc.
4005 EL CAMINO REAL • ATASCADERO, CA

ADVERTISEMENT

Woodworker's Resource

You can get useful ideas and product information by mail. Use the coupon in this section to order your choice of literature listed below. Each company mails the catalogs or information directly to you.

POWER TOOLS

SCROLL SAW, CRAFT & WOODWORKING CATALOG—Our 1997 catalog features all models of HEGNER Precision Scroll Saws, the consistent choice of the experts. The catalog also contains complete information on scroll saw blades and accessories, books, and patterns, as well as information on the HEGNER Lathes & Duplicators, HEGNER Accura Combination Machine, HEGNER Fingerjoint Machine, ZYLISS Vise and PLANO Glue Press. **ADVANCED MACHINERY.** $1.00. *Circle No. 3.*

TOOLS AND ACCESSORIES—120 page color catalog features Porter-Cable routers, sanders, pocket hole cutters, and biscuit joiners, Tormek grinders, Vega lathe duplicators and saw fences, Vacu-Presses plus a huge selection of power tool accessories. Best quality, fairly priced, every tool backed by our 184 years' experience and 60-day money-back guarantee. **CONSTANTINE'S.** Free. *Circle No. 20.*

INCA MACHINERY INFORMATION—Complete information on the famous line of Inca woodworking machines. Designed for precision work by the small to medium sized cabinet shop. Used by thousands of hobbyists and professionals. Table saws, bandsaws, joiner/planers, dust collector, radial arm saw. **GARRETT WADE CO.** Free. *Circle No. 44.*

HARBOR FREIGHT TOOLS CATALOG—The finest professional quality tools and equipment at the lowest prices...GUARANTEED! Our NEW Woodworking catalog has been expanded to contain hundreds of additional brand name woodworking tools & supplies. See why millions of woodworking professionals and Do-It-Yourselfers have shopped at Harbor Freight Tools for over 27 years. **HARBOR FREIGHT TOOLS.** Free. *Circle No. 46.*

HOME LUMBER—Ash, butternut, cherry, hickory, walnut flooring & paneling. Ironwood & paulope decking. Delmhorst moisture meters. Calculated Industries scale masters. JDS AIRTECH 2000. Abatron Liquid Wood. Franklin glues. Minwax, General finishes. AliAbrasives. Amana carbides. Bostich, Paslode, Porter-Cable nailers. Bosch tools. Largest selection of DeWalt & Makita in USA. Same day shipping, free freight. Visa, MC, Discover. Catalog. **HOME LUMBER.** $1.50. *Circle No. 48.*

INTERNATIONAL TOOL CORPORATION CATALOG —features the finest tools & accessories at the absolute lowest prices anywhere! Whether you're a home woodworker or an industrial user, you will find an incredible selection featuring Porter Cable, Bosch, Skil, Freud, Delta, Powermatic, Milwaukee, Makita, Hitachi, and many, many more. We offer same day shipping, the most knowledgable sales staff and free shipping on most UPS orders in the contiguous U.S. **INTERNATIONAL TOOL CORP.** $2.00. *Circle No. 49.*

ALASKAN SAW MILL ATTACHMENT—Granberg International manufactures a line of quality tools and accessories for grinding and filing chain saw chain, sharpening hedge trimmer blades, chain maintenance tools and horizontal and vertical saw mill attachments for your chain saw. Use the popular Alaskan Saw Mill attachment for milling lumber. Cut on site with the Alaskan and produce planks, beams, boards and slabs for building or woodworking projects. **GRANBERG INTERNATIONAL.** Free. *Circle No. 52.*

SURFACE PLANER—Information package available from Penn State Industries describing the specifications and applications of its super 12½ inch surface planer. Special discount pricing available on current promotion. **PENN STATE INDUSTRIES.** Free. *Circle No. 75.*

DUST COLLECTOR SYSTEMS—Keep your shop clean and safe from saw dust with one of our large capacity Commercial Style Dust Collection Systems. Catalog features our new DC-3 1-1/2 H.P. Portable System. Free hose and adapters are supplied with any purchase. Full line of Dust Collection accessories is available from Penn State Industries. Catalog. **PENN STATE INDUSTRIES.** Free. *Circle No. 75.*

CATALOGUE OF UNIQUE PRODUCTS FOR THE WOODWORKER—Filled with products and projects you can't find anywhere else. The 36-page full-color catalog features our complete line of Dust Collectors and accessories, Air Cleaners, Air nailers, Scroll Saws, Planers, and the exclusive Carbatec II variable speed mini-lathe and more. Explore our full line of projects and supplies including—pen kits, letter openers, perfume kits, kaleidoscopes, glass candles, project wood, and featuring the new and exclusive penlight flashlight kit. **PENN STATE INDUSTRIES.** Free. *Circle No. 75.*

JUST GET IT... FREE!—For a limited time the Infeed and Out-feed Tables are yours with the purchase of a 16-32 Plus Drum Sander. So if you're still wrestling with a belt sander, see your Performax Dealer today for a demonstration of how easy sanding can be with a Performax Drum Sander. **PERFORMAX PRODUCTS.** 50¢. *Circle No. 78.*

RBINDUSTRIES, WOODWORKING TOOLS & ACCESSORIES—100% Made in USA. The NEW 1996–1997 RBI catalog features the all new HAWK Precision *ULTRA* Scroll Saws, "4-in-1" and "3-in-1" Universal Woodplaner Systems, and 26" Variable Speed Drum Sander, 38" Drum Sander, the all NEW Panelmaster II Raised Panel Door Machine, Router Tables, Books, Accessories, Patterns, and Much More. When you buy from rbindustries, you're saving big money by buying factory-direct from one of America's premier woodworking tool manufacturers. We stand behind every piece of equipment we manufacturer with our exclusive 30-Day, Money Back Guarantee and 5-Year Warranty. Send today for your FREE catalog. **RBINDUSTRIES, INC.** Free. *Circle No. 84.*

TOOLS ON SALE™—A division of Seven Corners Ace Hardware, Inc. offers a catalog of over 400 pages of the most popular brands of power tools available anywhere, all at discounted prices. Included are saws, planers, sanders, routers, drills and more from manufacturers such as Milwaukee, Makita, Porter Cable, Black & Decker, Dewalt, Freud, Bosch, Delta, and many more. Now introducing a full range of Werner brand ladders. Tools on Sale™ division of **SEVEN CORNERS ACE HARDWARE, INC.** $1.00. *Circle No. 92.*

WOODWORKERS WANTED!—The Smithy 3-in-1 lathe-mill-drill gives you all 3 basic machine tools for working metal, plastic, or wood in one easy-to-use benchtop machine. Smithy can help you do it yourself. Free info pak & video. **SMITHY.** Free. *Circle No. 99.*

10 TOOLS IN 1!—Make the most of your workshop space with the easy-to-use SuperShop. Packs the power of 10 tools in 1 compact machine, built to last a lifetime. Woodworkers are saying, "You took all the complaints Shopsmith Mark V® owners have had for years and fixed them all. This is an awesome machine you have to see to believe." FREE Info Pak. **SMITHY SUPERSHOP.** Free. *Circle No. 100.*

HAND TOOLS

THE SANDDEVIL—Exciting new hand sanding tool for dry or wet sanding. It uses 100% of a 3" x 21" standard sanding belt. Injection molded in a substantial thermoplastic rubber, spring-loaded for easy snap-on and off and rotating. SandDevil's designed for a wide range of sanding situations. Offers a firm, comfortable grip. A sanding belt is included. **BELOFF-PAPPAS CO.** Free. *Circle No. 105.*

TOOLS THAT MAKE IT EASY!—Turning tools, carving tools, planes, scrapers, clamps, bits, squares, saws, stones, mallets, jigs—every tool you can think of and then some, in Constantine's 120-page full color catalog. **CONSTANTINE'S.** Free. *Circle No. 110.*

IMPROVE YOUR WOODWORKING SKILLS!—Craftsmen around the world have discovered the secret of better quality work. The 72 page Japan Woodworker Catalog is loaded with a huge selection of Japanese saws, waterstones, chisels, gouges, carving tools, planes, cutlery and garden tools. Send for 1992 catalog and all supplements for two years. **THE JAPAN WOODWORKER.** $1.50. *Circle No. 190.*

STAINS/FINISHES

SOLVENT AND WATER BASE FINISHES—Check Constantine's big 120-page catalog for the latest in finishing technology—stains, lacquers, polyurethanes, penetrating finishes, plus gloss and satin varnishes, milk paint, even hard-to-find specialty products like padding lacquer, shellac powder, and gold leaf. **CONSTANTINE'S.** Free. *Circle No. 210.*

PERFECT PEN POLISH—NEW Developed for pens but great for any small lathe turned object. Pen Turning Manual, everything you need to know from wood selection to marketing. A complete line of pen making supplies—many styles of mechanisms, unusual pen turning materials such as dyed stabilized burls and spalted woods. Send for catalog of wood turning and pen supplies. **HUT PRODUCTS FOR WOOD.** $1.00. *Circle No. 230.*

PLANS

PATTERNS! PATTERNS! PATTERNS!—Huge assortment of popular shop-tested designs! OVER 1500 top-quality FULL SIZE PATTERNS conveniently grouped into 78 jumbo blueprint sets. We've also included easy-to-follow instructions, sketches, material lists, painting & finishing info. PLUS tips & techniques! Beginner or pro will enjoy creating 100's of fun, profitable projects. Discount prices, fast service, satisfaction guaranteed! Illustrated catalog PLUS sample pattern. **ACCENTS IN PINE.** $2.00. *Circle No. 310.*

WOODWORKERS' PLANS AND SUPPLIES—Wood projects are simplified with the high quality plans, specialty hardware and other supplies offered by Armor Products. Over 100 plans are available for making toys, desks, clocks, pool tables, lamps, chests, and other furniture. Movements, dials, moldings, ornaments, dollhouse kits, door harp supplies and tuning pins are also available. **ARMOR PRODUCTS.** $1.00. *Circle No. 315.*

FULL-SIZE FURNITURE PLANS CATALOG—Illustrates and describes over 200 plans for making furniture of quality found in fine furniture stores. Plans include rolltop desk, cradles, beds, dining tables, chairs, buffets, chests, dressers, gun cabinets, Queen Anne lowboy and highboy, children's furniture, rocking horse, spinning wheels, Morris chair, Adirondack and English garden furniture and more. Bill of materials and exploded drawings assist the woodworker. Fine furniture plans since 1968. **FURNITURE DESIGNS, INC.** $3.00. *Circle No. 345.*

PROJECT PLANS—Full-size patterns for over 1,000 easy-to-build woodworking projects. Nation's leading source for plans to build wind chimes, toys, yard ornaments, furniture, holiday projects, whirligigs, scroll saw projects, and intarsia projects. Over 3,000 hard-to-find specialty items. Send for your big new 100-page full-color catalog. **MEISEL HARDWARE SPECIALTIES.** $2.00. *Circle No. 401.*

SOUTHERN PRIDE CRAFTS—Miniature Executive Desk plans for the little juvenile in your family. Stands only 22" high and resembles a high profile executive desk. Can be built in just one weekend. Also plans on a unique fish cleaning table with brass faucet, removable plastic sink, sink sprayer and filet board. Kits available. Brochure. **SOUTHERN PRIDE CRAFTS.** Free. *Circle No. 444.*

TO ORDER THESE BOOKLETS, USE COUPON ON PAGE 97

WOOD TOY PATTERNS—Patterns for all ages including children's patterns and executive toys. New catalog has many new patterns to choose from including parts and wheels. Send for new catalog today. **TOYS AND JOYS.** $1.00. *Circle No. 465.*

SCROLLSAW FRETWORK PATTERNS—& supplies catalog. From simple cutouts to 50" tall clocks. Over 300 patterns for the scrollsaw enthusiast. Also clock movements, tools, books, plywood, hardwood, sawblades. Great projects for the hobbyist or for profit. Catalog. **WILDWOOD DESIGNS, INC.** Free. *Circle No. 475.*

LUMBER

QUALITY EXOTIC LUMBER/TURNING WOODS—We offer a comprehensive selection of fine quality exotic woods. Also available are mechanisms for making wooden barrel pens/pencils/roller balls/fountain pens. Ebony, Kingwood, Tulipwood, Snakewood, African Blackwood, Cocobolo, Bloodwood, Figured Maple, Spaulted Maple, Padauk, etc. Unique and unusual turning woods and burls are also available. Send for catalog. **BEREA HARDWOODS.** $1.00. *Circle No. 510.*

ONE STOP WOOD SHOP—Domestic and exotic hardwood plywood and lumber, marine plywood, over 30 species in stock—all under one roof. Custom cutting services to your exact specifications with little or no waste at competitive prices! We specialize in bundling and shipping. Send for catalog. **BOULTER PLYWOOD CORP.** Free. *Circle No. 512.*

STEVE H. WALL LUMBER CO—Quality hardwoods and woodworking machinery for the craftsman and educational institutions. 16-page catalog lists 17 species of popular hardwoods at wholesale prices. Also dealers for MiniMax, Freud and ProCut woodworking machines. **STEVE H. WALL LUMBER CO.** $1.00. *Circle No. 592.*

HARDWOODS FROM AROUND THE WORLD—Over 100 exotic and domestic species. Lumber, veneers and turning stock. Certified timbers from environmentally sound sources. Quantity discounts, prompt shipping arranged worldwide, custom milling-lumber cut to size. All inquiries welcome. Satisfaction guaranteed. Send for catalog. **WOODWORKERS SOURCE.** $1.00. *Circle No. 598.*

VIDEOS

LAGUNA TOOLS VIDEO—Learn why most European workshops are using a central machine center rather than separate machines. 90 min. video presentation of "The Intelligent One Man Shop. The Robland X 31". Send for video. **LAGUNA TOOLS.** $6.00. *Circle No. 615.*

SHOPSMITH—The Shopsmith Mark V video kit will show you how you can be the woodworker you've always dreamed of being. You'll learn how to enjoy the many benefits of woodworking with the original 5-in-1 multipurpose woodworking system featuring sawing, drilling, sanding, boring, and turning. In one compact unit. **SHOPSMITH, INC.** Free. *Circle No. 650.*

GENERAL WOODWORKING CATALOGS

THE WOODTURNERS CATALOG—48 color pages of the finest woodturning tools, machinery and supplies available. Featuring Henry Taylor, Sorby, Richard Raffan and Dale Nish workshops. Catalog price refunded with order. **CRAFT SUPPLIES USA.** $2.00. *Circle No. 830.*

GRIZZLY IMPORTS, INC.—Our 1997 woodworking catalog is our biggest yet! 192 full-color pages packed with over 4,000 quality woodworking machines, tools and accessories, all at unbeatable prices. So, check us out and send for your free catalog today. **GRIZZLY IMPORTS INC.** Free. *Circle No. 860.*

FREE WOODWORKING TOOL CATALOG—Helping you become a better woodworker. This giant catalog of hard-to-find woodworking tools and supplies gives more than just manufacturer's specs. Included are detailed tool descriptions, useful techniques, as well as a schedule of educational seminars. **HIGHLAND HARDWARE.** Free. *Circle No. 870.*

THE WOODCRAFT CATALOG—Our FREE catalog features over 5,000 of the finest quality woodworking tools, books, lumber and hardware, all at rock bottom prices. If that's not enough, Woodcraft also offers technical assistance, tool sharpening, and something that no one else can do—same day shipping and an unconditional guarantee! Order a FREE copy today. **WOODCRAFT SUPPLY CORP.** Free. *Circle No. 955.*

THE WOODWORKERS' STORE CATALOG—The catalog that helps woodworkers do it right! Discover over 200 new products, including exciting items for making computer desks, entertainment centers, kaleidoscopes and humidors. Many exclusives and hard-to-find specialties like unique hardwoods, solid brass hardware, kitchen organizers, lighting systems and innovative tools—just to name a few! Toll-free ordering. Satisfaction guaranteed! **THE WOODWORKERS' STORE.** Free. *Circle No. 965.*

KITS

OUR QUEEN ANNE FURNITURE KITS—are ready to assemble and finish. They include dining room chairs, a variety of occasional tables, and a personal desk. All are made in solid cherry, oak, walnut, and mahogany. We also stock individual Queen Anne legs for every project. Complete information in our brochure packet. **ADAMS WOOD PRODUCTS.** Free. *Circle No. 1002.*

OUR QUALITY HEIRLOOM FURNITURE KITS—Are produced from 100% SOLID Maple, Oak, Cherry, and Mahogany. We have several varieties of chairs, tables, desks, computer stations, and more. We also manufacture an endless array of leg components including turning squares for nearly any project from Queene Anne to Modern-Day Contemporary. All of our products are satisfaction guaranteed and do not requre a minimum order. Send for literature today. **HICKORY FRAME CORPORATION.** Free. *Circle No. 1043.*

SHIP MODELING CATALOG—Historic Ship Models—Museum quality replicas you build yourself. Pre-cut wooden parts, metal and brass fittings, cloth sails, plans and instructions. Send for 80 page color catalog. **MODEL EXPO, INC.** $1.00. *Circle No. 1075.*

BUCKBOARD BENCH KIT—Kit includes steel springs that give a little, metal arms and back rails, hardware, and full-size instructions. New matching trestle table kit. **THE ROUDEBUSH CO.** 50¢. *Circle No. 1085.*

SHOP ACCESSORIES

ECON-ABRASIVES—Offers a complete line of sandpapers and woodworking related accessories. We custom make abrasive belts in any size and in any grit. Catalog. **ECON-ABRASIVES.** Free. *Circle No. 1229.*

50th ANNIVERSARY—For 50 years Industrial Abrasives Co. has offered the widest selection of quality abrasive products and accessories at incredibly low prices. From the small one man shop to large industrial accounts, we know the abrasive business and we want to be your supplier. Belts can be made to order, any grit—any size. Catalog. **INDUSTRIAL ABRASIVES CO., INC.** Free. *Circle No. 1238.*

KLINGSPOR'S SANDING CATALOGUE—64 pages of industrial quality sanding products now offered to the home hobbiest at unbelievable low prices. Included are sanding & finishing machines, industrial sandpaper and shop helpers. **KLINGSPOR ABRASIVES, INC.** Free. *Circle No. 1240.*

INDUSTRIAL ABRASIVES—Free Catalog of price busting abrasives upon request. Manufacturers of a complete line of lowest priced sanding belts, discs, and sleeves made to your specifications. Associated woodworking products, e.g., sheets, contour sanders, and belt cleaning sticks, to name just a few, all available at the best prices anywhere. Catalog. **INDUSTRIAL ABRASIVES CO.** Free. *Circle No. 1248.*

WOOD MOISTURE METER—Avoid moisture defects such as cracking, warping, splitting, delamination. The pin-type moisture meter "Mini-Ligno" can read surface or core moisture in any thickness of lumber, from veneer through heavy timbers. A flat surface is not necessarily required, thus the Mini works on rough sawn lumber and curved or round pieces. A most versatile instrument. Many hobbyists and professionals use the Mini-Ligno C or E/C with attachments to monitor lumber during air or kiln drying or use external electrode for depth readings. Catalogue describes complete line of moisture meters. **LIGNOMAT USA, LTD.** Free. *Circle No. 1250.*

ROUTER SPEED CONTROL—Reduces speed electronically without reducing torque. Route at the speed that gives best results with the wood and bit you are using. Speed adjustable from full speed to 0 RPM. Less tear out—stops burning—less wear on bits—easy to use. Send today for information. **MLCS LTD.** Free. *Circle No. 1251.*

SUPERGRIT® SANDING/REFINISHING CATALOG CLOSE-OUT SHEET—Belts (aluminum oxide, silicone carbide zirconia), discs (plain, PSA, Hook & loop vacuum), sheets (cabinet, crocus, emery, non-loading, waterproof), rolls (cloth or hook & loop), bowl turning & lathe supplies, dust masks, scuff pads, tack cloths, tape. **RED HILL CORP.** Free. *Circle No. 1267.*

"WOOD-FRIENDLY"™ L606 MOISTURE METER—uses advanced electromagnetic wave technology to accurately measure wood moisture content from 6% to 30% to a depth of ¾". No pins to "abuse" wood and leave ugly holes. Check out boards from top to bottom in just seconds before you buy and avoid the headaches of splitting, warpage, delaminating and failed glue joints. The Wagner L606's convenient pocket size, easy-to-read analog meter, and low price make it a must for anyone working with wood. Literature. **WAGNER ELECTRONIC PRODUCTS, INC.** Free. *Circle No. 1285.*

BITS, BLADES, CUTTING TOOLS

FOUR-COLOR ROUTER BITS AND SAW BLADE CATALOGUES FROM CMT USA, INC.!—Router bits and saw blades ideal for production work. Features include: Premium Fatigue-Proof™ steel machined from solid bar stock, anti-kickback design, sheer angle on cutting edges, CMX-4 micrograin carbide, radial relief on all straight bits, and a baked-on non-stick PTFE orange coating applied at 750°F. Saw blades have new sound-dampening channels laser-cut into the plate body of all 10" and larger blades, and anti-kickback shoulders. Router bits and blades come with sturdy hardened carrying case. Router bit sets are stored in a beautiful hinged hardwood case. **CMT USA, INC.** Free. *Circle No. 1312.*

FREUD—Premier line of carbide-tipped sawblades, router bits, shaper cutters and other woodworking tools, Freud offers a full-line on anti-kickback carbide-tipped router bits. Send for a free new router bit catalog. **FREUD.** Free. *Circle No. 1321.*

ASK FOR JESADA TOOLS' FREE CATALOG!—Jesada's full-color catalog is packed with router bits, saw blades, shaper cutters, planer & jointer knives and more. Jesada router bits feature micrograin carbide edges, antikickback design and the finest mirror-finish grinding you'll find anywhere. Our catalog also offers lots of accessories, project ideas and safety tips—it's one catalog you'll want to keep! **JESADA TOOLS.** Free. *Circle No. 1335.*

PRODUCTION QUALITY CARBIDE TIPPED ROUTER BITS—Large discounts. New expanded catalog featuring a huge selection of Carbide Tipped Router Bits, Raised Panel Door Sets, Shaper Cutters, Solid Carbide Bits, The Router Speed Control, plus our unique line of clamps, tools and supplies. Save 50% to 70%. Value, quality, and prompt service guaranteed! **MLCS LTD.** Free. *Circle No. 1350.*

INDUSTRIAL-QUALITY CARBIDE TIPPED ROUTER BITS & SHAPER CUTTERS—Great selection at the best prices for anti-kickback design router bits and shaper cutters. Same day service. Ask about our specials and free catalog. **WOODLINE ARIZONA INC.** Free. *Circle No. 1395.*

INCOME OPPORTUNITIES

SECURE FUTURE IN FURNITURE RESTORATION WITH MINUTEMAN—Earn $200–$1,000 per day stripping, repairing, refinishing, mirror resilvering, veneering and more at home or in shop; part- or full-time. We provide complete training; no experience necessary. FREE workshop teaches you latest in furniture restoration. Featuring Amity, the first complete line of water-based furniture restoration products. Catalog. **MINUTEMAN.** Free. *Circle No. 1661.*

TO ORDER THESE BOOKLETS, USE COUPON ON PAGE 97

MISCELLANEOUS

CREATE-A-BED™—Murphy bed mechanism was designed for the do-it-yourselfer with basic skills and tools. Mechanism package comes with complete step-by-step construction instructions, templates, cut sheets and bill of materials to build a beautiful wooden murphy bed from plywood or particle board. Patented mechanism utilizes a piston lift system to raise and lower a twin, full or queen-size bed easily and safely. Only this mechanism features the "locking leg" design that locks the bed into the cabinet when it's closed and a 100% satisfaction guarantee. **CREATE-A-BED.** $2.00. *Circle No. 1911.*

WIRELESS DRIVEWAY ALARM—A bell rings in your house anytime someone walks or drives into your place. Also, a complete line of wireless security equipment, telephone dialers, power outage sensors, temperature sensors, etc. Be sure to order our free literature today. **DAKOTA ALERT, INC.** Free. *Circle No. 1914.*

TRUCK OWNERS, THE ROLL-TOP COVER™ IS QUICK AND EASY!—The Roll-Top Cover™ instantly rolls out to keep contents dry and secure. When not required it rolls into its small 9¼" storage canister for carrying tall loads. The full length handle can be easily operated with *one hand* from either side of the truck. Send for brochure. **PACE-EDWARDS CO.** Free. *Circle No. 1985.*

PERSONALIZE ALL YOUR WOODWORKING PROJECTS—Put a custom engraved brass nameplate on all of your Woodworking Projects—and be remembered forever! Gold, silver & black brass plates available and come with brass brads for easy attaching. Finish your projects off in style. Let us send you a personalized sample with complete ordering information. **SIGN DESIGN CUSTOM PRODUCTS, INC.** $5.00. *Circle No. 2005.*

STEELMASTER BUILDINGS—are available in almost any size for almost any use. From 10' to 100' wide and any length imaginable. Whether you need a back yard shop... an industrial shop... equipment storage building... whatever your requirements, you'll find a Steelmaster that's just the right size for the job. Our buildings are so easy to construct, most owners opt to construct their buildings themselves which adds up to even bigger savings. Send for information. **STEELMASTER.** $1.00. *Circle No. 2030.*

IF YOU ARE INTERESTED IN RESTORING ANTIQUES—this 288-page catalog packed with unusual, hard-to-find items is just for you. Included are hundreds of essential items for antique restoration including top quality brass reproduction hardware, oil lamps and accessories, numerous wood component repair parts and kits, caning and basketry supplies, everything needed for wood refinishing, related tools, books, and a complete line of upholstery equipment and supplies. All at wholesale prices. Send for this informative catalog. **VAN DYKE'S RESTORERS.** $1.00. *Circle No. 2077.*

WHOLESALE GLASS BROKERS—High quality glass shipped to your door directly from the finest manufacturers. Table tops; tempered glass; shelves; beveled glass; custom shapes; ⅛" to ¾" thick; tinted glass; and much more! Your one-stop discount glass source. Idea catalog. **WHOLESALE GLASS BROKERS.** Free. *Circle No. 2079.*

LEGAL IVORY—Virtually identical to animal ivory. Tagua is the nut from a tropical palm tree. Ideal for jewelry, knobs, small turnings, inlay, or scrimshaw. Available in 3 sizes. Send for information. **WOODWORKERS SOURCE.** Free. *Circle No. 2090.*

PEN, PENCIL PRODUCTION SYSTEM—And equipment and supplies are detailed in free brochure. Anyone can produce high-quality pens and pencils from rare woods. The "WoodWrite" production system provides all equipment, supplies and consumables for your first 50 sets. Contact us for best prices on components and pre-cut, pre-drilled wood blanks. **WOODWRITE, LTD.** Free. *Circle No. 2098.*

CARVING SUPPLIES

PARAPHERNALIA—A sourcebook for everyone who loves to work with their hands. Consisting of ultra high speed engraving (315,000 RPM) carving equipment, training & supplies. We are the founders of ultra high speed engraving equipment & techniques. Serving & supporting since 1983. Free catalog available. Demo video available with refundable deposit. **PARAGRAPHICS.** Free. *Circle No. 2160.*

HI-TECH ENGRAVING—You don't have to be an artist with the System One High Speed Engraver (400,000 RPM). The incredible high speed combined with SCM's exclusive stenciling system allows you to produce professional results. You can engrave on wood, glass, metal, stone, ceramic, egg shell. It's as easy as writing with a pen. Send for information. **SCM ENTERPRISES.** $1.00. *Circle No. 2165.*

WOOD CARVING MACHINES AND ACCESSORIES—make all types of wood carving easy, fun and profitable. The machines do the work. Whether for sign carving, flat 3-D, decoys, panels, gun stocks or furniture, we have the proper machine for the job. Professional woodcarving for the hobbyist and superior quality for the professional. Begin your hobby or full or part-time business by ordering our catalog and price list. **TERRCO.** $1.00. *Circle No. 2175.*

TOOLS FOR TURNERS AND CARVERS—The largest selection of Henry Taylor turning and carving tools in the USA. Also tools by Dennis Stewart, Jerry Glaser, Sorby, OneWay, CarbaTek, and Sherline. **THE CUTTING EDGE, INC.** $1.00. *Circle No. 2180.*

WOOD SIGN MAKING MACHINE—Make wood signs in minutes. Returns $50+ per hour. For serious hobbyists and professionals. Make signs any length, any thickness. Also makes pictures in wood, cut-out letters, and other woodcrafts. Template guided, easy to use, full instructions. Table top size. "Dust-free" attachment. Own your own business for lifetime income security. **WOODWORKER MACHINES.** $1.00. *Circle No. 2193.*

WOODTURNING SUPPLIES

WOODTURNING SUPPLIES!—Best selection of woodturning supplies anywhere. Greatest selection of pen kits, pencil kits, project kits, boxes, and display cases available. Slimlines, "Mont Blanc," "Parker," bottle stoppers, etc. Over 250 different pen blanks including exotics, figured, acrylics, celluloids, and dymondwoods. Carving supplies and books. **WOODCRAFTERS OF OKLAHOMA.** Free. *Circle No. 2195.*

CLAMPS

MERLE ADJUSTABLE CORNER CLAMP—Quick & easy to use. It forces your work into square. Fully adjustable from 2⅝" x 2⅝" to 69" x 69" in. Perfect for clamping picture frames, cabinets, or anything that requires 90° corner clamping. The Merle Clamp is cast aluminum & steel construction, a true industrial quality tool. Send today for information. **MLCS LTD.** Free. *Circle No. 2250.*

CLOCKS

CLOCK KITS AND CLOCKMAKING COMPONENTS—America's leading source for highest quality, traditional do-it-yourself clocks and clock parts. Selection includes desk clock kits (complete with movement, dial and glass) for under $20 to elaborate grandfather clock kits with German brass tubular chime movements. Always the lowest prices because all woodwork is produced in our factory. Catalog also features a broad selection of quartz and brass movements, quartz fit-ups, dials, wood finishes and hard-to-find clock hardware, all at very competitive pricing. Write today for the most complete product selection for clockmakers! Catalog. **THE AMERICAN CLOCKMAKER.** Free. *Circle No. 2320.*

KLOCKIT—The leading supplier of clock-making supplies for over 25 years: Quartz and mechanical movements, clock inserts, dials, easy-to-follow plans and kits for all skill levels. **KLOCKIT.** Free. *Circle No. 2335.*

CLOCK PARTS CATALOG—For the hobbiest and clock enthusiast. Contains clock parts, quartz and mechanical clock movements. Tools for the hobbies and clock repair person. Gift ideas include complete clocks, watches and novelty items. Your satisfaction guaranteed. **S. LAROSE, INC.** Free. *Circle No. 2375.*

FASTENING PRODUCTS

SQUARE DRIVE SCREWS—Thousands agree—once you try them you will never want to use anything else! The square drive recess virtually eliminates work-damaging driver bit "cam-out," the deep threads result in exceptional holding power, and they are heat treated for strength. Sizes from #4 x ⅜" to #12 x 4", with stainless steel, solid brass, brass plated, and zinc plated available. Quantity discounts. Send for literature. **McFEELY'S.** $1.00. *Circle No. 2450.*

SHOWS & SEMINARS

****THE WOODWORKING SHOWS* MACHINERY, TOOLS AND SUPPLIES***—Hundreds of products for the woodworker demonstrated and sold at discount prices at every *Woodworking Show*. In-depth seminars and free workshops on a variety of woodworking topics. Shows are scheduled in 27 cities. Send for free brochure. ***THE WOODWORKING SHOWS*.** Free. *Circle No. 2900.*

Woodworker's Resource

Better Homes and Gardens®
WOOD Magazine, Winter 1997
Dept. WIWO97
P.O. Box 14411
Des Moines, IA 50306-3411

TO ENSURE PROMPT HANDLING OF YOUR ORDER FOLLOW THESE INSTRUCTIONS:

- **Circle your choice**
- **Enclose check or money order for cost of booklets plus $2.00 service charge (no stamps accepted)**
- **Send coupon and remittance to address above**
- **ALLOW 4-6 WEEKS FOR DELIVERY**
- **Coupon expires January 25, 1999**

WOOD SUBSCRIPTION

A 1 year WOOD subscription (9 issues) for $25.00 (U.S. price)—a $19.55 savings off newsstand rate (Circle No. 4000). Allow 6-8 weeks for first issue. Be sure to include payment with total below.

Circle numbers below corresponding to items in this issue. Please include $2.00 for handling charge.

3.....$1.00	99 .....Free	444 .....Free	870 .....Free	1250 .....Free	1914 .....Free	2180.....$1.00
20 .....Free	100 .....Free	465.....$1.00	955 .....Free	1251 .....Free	1985 .....Free	2193.....$1.00
44 .....Free	105 .....Free	475 .....Free	965 .....Free	1267 .....Free	2005.....$5.00	2195 .....Free
46 .....Free	110 .....Free	510.....$1.00	1002 .....Free	1285 .....Free	2030.....$1.00	2250 .....Free
48.....$1.50	190.....$1.50	512 .....Free	1043 .....Free	1312 .....Free	2077.....$1.00	2320 .....Free
49.....$2.00	210 .....Free	592.....$1.00	1075.....$1.00	1321 .....Free	2079 .....Free	2335 .....Free
52 .....Free	230.....$1.00	598.....$1.00	1085.....50¢	1335 .....Free	2090 .....Free	2375 .....Free
75 .....Free	310.....$2.00	615.....$6.00	1229 .....Free	1350 .....Free	2098 .....Free	2450.....$1.00
78.....50¢	315.....$1.00	650 .....Free	1238 .....Free	1395 .....Free	2160 .....Free	2900 .....Free
84 .....Free	345.....$3.00	830.....$2.00	1240 .....Free	1661 .....Free	2165.....$1.00	4000...$25.00
92.....$1.00	401.....$2.00	860 .....Free	1248 .....Free	1911.....$2.00	2175.....$1.00	

Name (please print) _____
Address _____
City _____
State _____ Zip Code _____
Phone (Optional): _____ – _____

I AM ENCLOSING:

$ _____ for priced items
$ 2.00 for handling
$ _____ total remittance (US dollars only)

WOULD YOU LIKE TO OWN THE MOST PRODUCTIVE SCROLL SAW ON THE MARKET?

THE RBI HAWK ULTRA 220 & 226 IS YOUR ANSWER!

- Ultra-Smooth Cutting Control
- Fastest & Easiest Blade Change System
- Ultra-Smooth Running, Vibration Free
- No Sanding Required
- "Top-to-Bottom" 5 Year Warranty

Visit the RBI Home page at http://www.rbiwoodtools.com

Copyright-1997 rbindustries. All rights reserved

1996 WOOD MAGAZINE EDITORS' CHOICE TOP VALUE

220 Hawk Ultra

rbindustries, inc.

America's Woodworking Machinery Manufacturer

1801 Vine Street • PO Box 369 Harrisonville, MO 64701

G114

Call 1-800-487-2623 for info!

Start Your Own Business

CUSTOM ENGRAVING

No Experience Necessary • No Artistic Ability Needed

- 400,000 RPM Engraving Tool
- Unlimited Potential
- Complete Stencils

Professional Results

HIGH SPEED ENGRAVING SCM SANDBLASTING

There is no experience necessary because SCM has developed a business opportunity that will have you producing professional engraving in a few short hours – just by tracing lines! ***It's That Easy!***

Engrave on... *• Glass • Wood • Metal • Stone • Marble • Eggs*

To Find Out Just How Easy It Is Call Now For Details...

1-800-755-0261

W140 N5946 Lilly Road • Menomonee Falls, WI 53051 **(414) 252-3989**

Ask About Our DEMO VIDEO

Deposit Required

Circle No. 2165

PRODUCTS THAT PERFORM

SHOP TESTED

Continued from page 92

Drill Doctor cures the dull-drill-bit blues

When it comes to frustration, sharpening a dull drill bit ranks just behind trying to drill a hole with one. But Darex Corporation offers a sure cure for the dull-bit blues with its new bit sharpener.

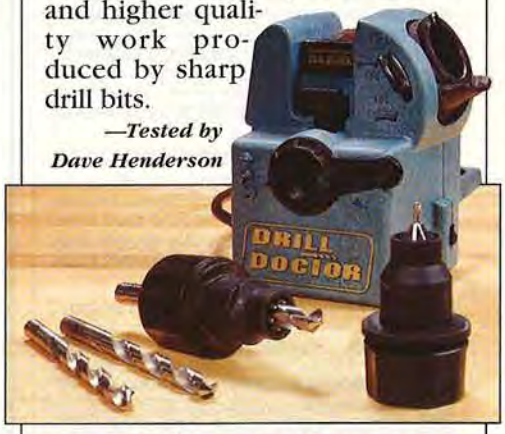
The Drill Doctor 750SP puts factory grinds on dull bits from 3⁄32" to 3⁄4" in diameter. Using a diamond-impregnated wheel, it handles plain ground, split point, and masonry bits, and puts either a 118° or 135° grind on the tips.

An adjustable chuck indexes the bit and sets the proper depth. You insert the chuck into a sharpening port and rotate it. Cams on the chuck and port raise and lower the bit so the wheel grinds the proper relief angles.

On damaged bits, I needed to repeat these steps several times to grind away enough material to get a good point. For split grinds you use another port to produce the split. Unfortunately, it won't sharpen brad-point bits.

The Drill Doctor's $170 price tag would buy a lot of bits. But if you use your bits frequently, this machine should pay for itself over time in saved sharpening costs, and higher quality work produced by sharp drill bits.

—Tested by Dave Henderson



PRODUCT SCORECARD

Drill Doctor 750SP drill bit sharpener

Performance	★ ★ ★ ★ ★
Price	$169.95
Value	★ ★ ★ ★ ☆

Darex Corp., Box 277, Ashland, OR 97520. Call 541/488-2224.

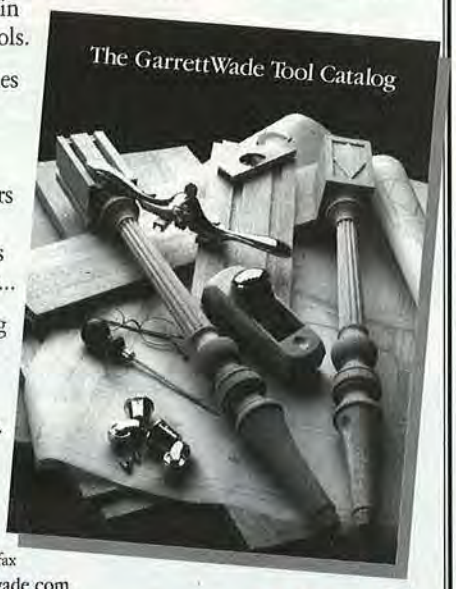
Continued of page 100

Free Catalog

The Highest quality woodworking tools and supplies are available from **The Garrett Wade Tool Catalog.**

Everything from traditional old-style hand planes and saws to the very latest in modern power tools.

- Finishing Supplies
- Hand Tools
- Hardware
- Inca Machines
- Multico Mortisers
- Power Tool Jigs
- Sharpening Tools
- And much more...



For a Free Catalog call Toll Free or write to:

Garrett Wade Co.
161 6th. Avenue
NY, NY 10013

800-221-2942
800-566-9525 -fax
http://www.garrettwade.com

From Garrett Wade

Circle No. 44

The Laguna Tools New 18 Bandsaw.

PROBABLY THE BEST 18" BANDSAW EVER BUILT!

Compare to other manufacturers:

- ✓ 3 HP motor
- ✓ Heavy-duty cast iron trunion
- ✓ Dynamically balanced cast iron flywheels
- ✓ Heavy duty fence
- ✓ Foot brake
- ✓ Rack-and-pinion adjustment of upper guide
- ✓ European-style guide bearings
- ✓ Optional mobility kit
- ✓ Optional heavy-duty miter-gauge
- ✓ 12" resaw capacity
- ✓ Tension indicator
- ✓ Excellent dust collection

Call now for a free video!

LAGUNA TOOLS

(800) 234-1976

(714) 494-7006

http://www.lagunatools.com
2265 Laguna Canyon Road
Laguna Beach, CA 92651

Circle No. 615

Econ-Abrasives

WE MAKE ABRASIVE BELTS ANY SIZE, ANY GRIT!

Standard Abrasive Sheets

CABINET PAPER

	50/pk	100/pk
60D	$16.70	$30.00C
80D	15.60	27.80C
100 thru 150C	14.50	25.60C

FINISHING PAPER

80A	$ 11.15	$18.90C
100 thru 280A	10.00	16.70C

NO LOAD PAPER(white)

100 thru 400A	$12.25	$21.25C

"C" = 100 SHEETS

Velcro® Vacuum Discs

8 Hole pattern for Bosch sanders

Dia.	Grit	Price
5"	60	$ .48ea
5"	80	.46
5"	100 thru 320	.45

★ *Available in 5 hole pattern* ★

ABRASIVE BELTS

Belts are resin bond cloth with a bi-directional splice, specify grits.

1X30	$ .81 ea	3X24	$ .93 ea
1X42	.81 ea	3X27	.96 ea
1X44	.81 ea	4X21 3/4	1.06 ea
2 1/2X16	.85 ea	4X24	1.10 ea
3X18	.86 ea	4X36	1.35 ea
3X21	.90 ea	6X48	3.50 ea
3X23 3/4	.93 ea	6x89	6.24 ea

OTHER SIZES ON REQUEST

HEAVY DUTY SPRING CLAMPS

Clamps come w/PVC tips and grips.

Size	Price
4"	$1.75 ea
6"	2.25
8"	3.50

JUMBO ROUTER PAD(24" x 36")

It will not allow small blocks of wood to slip out under router or sanding applications. ROUTER PAD ONLY $8.95ea.

JUMBO BELT CLEANING STICK ONLY $8.80

*Wide Belts*Rolls*Flap Wheels
*Pump Sleeves*PSA Discs
*Router & Wood Bits*Wood Glue

*MasterCard, VISA, C.O.D. or Check
*SATISFACTION GUARANTEED!!!
*CALL FOR *FREE* CATALOG
- TX & NV add appropriate sales tax
- Continental U. S. shipping add $5.50

Econ-Abrasives
P. O. Box W865021
Plano, TX 75086
(972)377-9779

TOLL-FREE ORDERING LINE (800)367-4101

Circle No. 1229

Small Shop MAGIC

Short on shop space? The Shopsmith MARK V gives you the five most important woodworking tools – table saw, lathe, drill press, disc sander and doweling machine – all in one unit. It takes no more space than a bicycle and turns any spare corner into a complete, professional-quality home shop.

Get the facts and learn how to have the shop you've always wanted, to build the projects you've always dreamed of.

Free Video and Information Kit!

1-800-543-7586

ASK FOR DEPT. WOD3

Shopsmith Inc.
6530 Poe Avenue • Dayton, OH 45414

Circle No. 650

SHOP TESTED

Continued from page 98

Merle Clamp puts the squeeze on workpieces

When I recently built a laminated work surface, I needed to put some extra clamping pressure on the mitered banding around the top. I tried a nylon band clamp, but the nylon strap stretched too much to be effective.

The solution was the Merle Adjustable Clamp, which uses a ⅜"-wide spring steel band instead of a nylon strap. Similar to the tempered steel used for pallet tie-downs, this band won't stretch and helps you put tremendous clamping pressure around the perimeter of a frame. And unlike a nylon strap, glue won't adhere to the steel band—dried-on drips pop right off.

The clamp comes with cast-aluminum right-angle corner brackets that concentrate the band's pressure. With a bracket on each corner, you snug up the band, and tighten down a clamping bar to hold it in place. Then you twist the plastic handgrip to apply the necessary clamping pressure.

The clamp has a convenient circular case with a crank handle so you can rewind the band for storage. It comes with a 22' band. An optional 40' band sells for $7.

—Tested by Chuck Hedlund

PRODUCT SCORECARD

Merle Adjustable Clamp

Performance	★ ★ ★ ★ ★
Price	$24.95
Value	★ ★ ★ ★ ★

MLCS, P.O. Box 4053D, Rydal, PA 19046. Call 800/533-9298.

Deck the Halls with a Holiday Gift from **PORTER-CABLE** *& International Tool Corporation!*

Model 9862F

12V 3/8" Cordless Drill w/ keyless chuck, 2 batteries, charger & flashlight

- 288 in/lbs torque
- 0-350& 0-1250 rpms, 20 position clutch w/ brake

$184.00

Model 693PK

1 1/2 hp Router with Plunge & Fixed Bases

Also includes 1/4" & 1/2" collets and a heavy duty plastic case w/room for your router bits!

$196.00

Model 693PKX same as above with edge guide & template guide kit $229.00

Model 698

Router table

•12 7/8" leg height allows use of 1 1/2 to 3 1/4 hp routers •Large 19 3/4" x 16 3/4" machined aluminum table with cast-in lip to support extensions. Built in dust port. Includes miter gauge

$134.00

Model 7539

3 1/4 HP Plunge Router Var. Speed

•Includes 1/2" collet •High torque motor •Control knobs positioned close to base for accurate control. Features soft start, 3" plunge range. 15 amp, 10,000-21,000 rpm

$278.00

Model 9444VS

Var. Speed Profile Sander Kit

•Comes complete with: profile mounting plate, offset profile mounting plate, 17 different profile pads, holed standard sanding pad, dust pick-up wand, hook & loop holed sanding sheets, Adhesive backed sanding roll. *The perfect refinishing tool!*

$112.00

Purchase any one of these tools and receive either **"THE WORLD OF PORTER CABLE ROUTERS"** or **"THE WORLD OF PORTER CABLE SANDERS"** video tape absolutely free! You will also receive a **COUPON GOOD FOR $5.00 OFF** of any Porter Cable accessory purchased from **INTERNATIONAL TOOL**. Call for details! Offer expires 12/31/97 or while supplies last.

Model 335

Quicksand 6" Random Orbit Finishing Sander with Dust Collection

•Adapter pad accepts both hook & loop and adhesive backed paper. 1.7 amp, 9,000 opm. Pad control to prevent pad spin-up; swirl free sanding

$84.00

Free UPS freight & same day shipping

FedEx Federal Express

Most tools under 70 lbs. shipped Fed Ex Express Service for $9.00 .... call for details!

Model 360VS

3" x 24" Belt Sander with Dust Collection & Variable Speed

12 amp, 1,000 - 1,500 sfpm. New Whisper series for amazingly low noise.

$228.00

Model 97549

Electronic Var. Speed Top Handle Bayonet Saw Kit

•Universal blade clamp, 4.8 amp. 500-3200 spm, orbital action. Includes case & 3 blades

$139.00

Model BN200CK

18 Gauge Brad Nailer Kit

includes:

BN200	$134.00
CF1400 compressor	$192.00
25' hose	$14.99
	$340.99

SPECIAL COMBO PRICE $326.00

Model CF1400

1 hp, oil free compressor, 4 gallon pancake style tank

Model NS150CK

18 Gauge 1/4" Narrow Crown Stapler Kit

includes:

NS150	$157.00
CF1400 compressor	$192.00
25' hose	$14.99
	$363.99

SPECIAL COMBO PRICE $349.00

Model DA250

15 Gauge Angle Finish Nailer Kit

•Uses standard type 15 gauge angle finish nails in a range of 1 1/4" to 2 1/2" long

$199.00

WE ACCEPT VISA, MASTERCARD, DISCOVER, & AMERICAN EXPRESS GIFT CERTIFICATES AVAILABLE *ALL CHECKS WILL BE HELD 10 BUSINESS DAYS*

QUANTITIES LIMITED - NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS - PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BUSINESS HOURS: MON-FRI 8-5 PM EST/ SATURDAY: 9-12 EST

INTERNATIONAL TOOL CORPORATION

•2590 DAVIE RD., DAVIE FLORIDA 33317

VISIT OUR WEBSITE AT HTTP://WWW.INTERNATIONALTOOL.COM

FAX US YOUR ORDER AT 1-954-792-3560

1-800-338-3384

•FREE FREIGHT & SAME DAY SHIPPING ON MOST UPS ORDERS OVER $50 MINIMUM PURCHASE WITHIN THE CONTIGUOUS U.S.A.

FREE Shipping thru 1/31/98
For INFO OR ORDER CALL 1-800-733-7111
(973) 473-5236
Fax (973) 471-3333

10% to 20% OFF (Listed Items)

SUPER WINTER COMBO SALE

FREE $45 IN SHARPENING COUPONS
GOOD ON ALL FORREST OR *OTHER MAKES* OF CARBIDE BLADES OR DADO SETS. Coupons expire 6/30/99.
Must mention *WOOD* magazine for discounts & coupons with purchase.

EXCLUSIVE! FREE OFFER

$23 Value!

117 pages full color photos and illustrations. Simple effective ways to measure, scale, draw & calculate to guarantee good proportions, clean cuts, snug joints, & right fit everytime! PUT THIS GOLDMINE TO WORK IN YOUR SHOP!

Published by Popular Woodworking
Author – Jim Tolpin

OR 300 Great Shop Tips or Forrest Logo cap FREE with any saw blade or Dado listed & purchased from this ad. You must mention you saw this offer in WOOD® Magazine, when ordering.

Offer Expires Jan. 31, 1998. One book per order.
ORDER NOW SUPPLIES ARE LIMITED.

BUY 1 BLADE OR DADO AT 10% OFF SALE PRICE, OR BUY 2ND BLADE AT 20% OFF (EQUAL OR LESSER VALUE) 15% OFF DADO AS SECOND CHOICE.

WOODWORKER II— 6" – 7 1/4" – 14"

With this one ALL PURPOSE blade you can RIP & CROSSCUT 1"–2" ROCKHARDS and SOFTWOODS resulting in a **SMOOTH AS SANDED** surface. PLY-VENEERS of OAK and BIRCH will crosscut with NO BOTTOM SPLINTER at moderate feed rates.

- DOUBLE HARD and 40% STRONGER C-4 CARBIDE
- Ends blade changing
- Ends scratchy saw cuts
- Ends second-step finishing
- Ends cutting 1/16" oversize to allow for RESURFACING
- **BUY AND SHARPEN 1 BLADE INSTEAD OF 3**

5/8" holes, boring thru 1-1/4" add $7.50. Larger at Time Basis —Shipping $4.50

WOODWORKER II	LIST	SALE	10%	20%
14"X40TX1"	$215	$149	$134	$119
14"X30TX1"	$195	$139	$125	$111
12"X40TX1"	$183	$129	$116	$103
12"X30TX1"	$162	$119	$107	$ 95
10"X40TX1/8" or 3/32"	$156	$119	$107	$ 95
30T 1/8" or 3/32"	$135	$ 99	$ 89	$ 79
9"X40T	$146	$109	$ 98	$ 87
30T	$125	$ 99	$ 89	$ 79
*8-1/4"X40TX 3/32"	$136	$ 99	$ 89	$ 79
8"X40T 3/32"	$136	$ 99	$ 89	$ 79
30T	$115	$ 89	$ 80	$ 71
7-1/4"X30T 3/32"	$112	$ 69	$ 62	$ 55
**6"x40T 3/32"	$136	$ 89	$ 80	$ 71

*NEW for Sears & Makita Table Saws **New For Saw Boss

$21 VALUE STARTS AUG. '97
FREE 10" ORANGE PLASTIC BLADE RUNNER-CARRIER!
SHIPPED WITH 6", 8" & 10" DADO SETS. HOLDS UP TO 10 BLADES, 5 PER SIDE ON CENTER BOLT OR DADOS.

DELUXE DADO-KING!
AS LOW AS $184 NET AFTER USING SHARPENING COUPONS

WORLD'S NO. 1 DADO - NO CHIP ON PLYS & MELAMINE

C-4 Carbide Tips — 4 on each chipper with special negative face hooks. Shims & 3/32" Chipper. Cuts 1/8" to 29/32" wide!!

	LIST	SALE	10%	15%
6" D. 5/8" Bore NEW	$299	$269	$242	$229
8" D. 5/8" Bore	$321	$289	$260	$245
10" D. 5/8" & 1" Bore	$389	$349	$314	$297
12" D. 1" Bore	$499	$449	$404	$382

(Bore up to 1-1/4" Add $25 — Plus $5.50 S&H)

CUTTING PROBLEMS?
Call the factory for *FREE* technical help!!
1-800-733-7111
201-473-5236

FLASH NEWS!!
OUR $79 - $89 30T & 40T OUTPERFORMED (E-EXCELLENT) 23 other 40T & 50T premium blades both foreign & domestic on Ply, Melamine, MDF and Oak/Rip!

Fine Woodworking Magazine test Oct. 96 page 43

After installing your blade and 5 in. stiffener the vibration in my saw went down another 20%. I ran several pieces of hardwood through the saw, both crosscut and ripping, and was amazed at the smoothness. It was like cutting butter, maybe smoother. I have never had a saw blade that cut this smooth.

Rick Price

CHOPMASTER FOR SLIDING COMPOUNDS & MITER SAWS

New specs, 5º Neg. Pts. & flat, runs out less than .002 for perfect, tight, smooth, splinter-free miter joints.

TAKE EXTRA 10% – 20% OFF COMBO SALE!

NEW SIZES AVAILABLE	LIST	SALE
Delta Sidekick 6-1/2"x40Tx5/8"	$149	$ 89
Sears 8-1/4" & Delta 8-1/4"x60Tx5/8"	$170	$ 99
Hitachi 8-1/2"x60Tx5/8"	$179	$109
DeWalt 8-1/2" & Ryobi 8-1/2"x60Tx5/8"	$179	$109
Delta 9"x80Tx5/8"	$204	$119
Ryobi–Makita & all 10"x80Tx5/8"	$207	$129
DeWalt, Makita, B&D, Hitachi 12"x80Tx1"	$229	$139
Ryobi–Makita 14"x100Tx1"	$266	$179
Hitachi 15"x100Tx1"	$277	$189

For good general purpose cuts use Woodworker II 30T & 40T or Woodworker I. Use small stiffener where possible.

THE ONE BLADE THAT LEAVES A SMOOTH-AS-SANDED SURFACE!

SAVE ANOTHER **$45 to $90** AFTER USING SHARPENING COUPONS

WOODWORKER I – CROSSCUT — 7 1/4" – 14"
For TABLE and RADIAL SAW – 10% to 20%

NON-SPLINTERING PLYS

	LIST	SALE
14"x60Tx1"	$224	$159
12"x60Tx1" or 5/8" 1/8"K	$198	$139
10"x60Tx5/8" 3/32"K	$162	$129
8-1/4"X60T	$150	$109
8"X60T	$150	$109
7-1/4"X60T	$150	$109

OTHER SIZES AVAILABLE – 7 1/4" – 14"

DURALINE HI-A/T FOR TABLE & RADIAL SAWS
PORTABLE & PANEL SAWS

5/8" HOLES. Boring up to 1-1/4" $7.50 extra. Larger holes–time basis. Shipping $4.50.

TAKE 10% TO 20% MORE OFF THESE PRICES

Faster feed rates & absolute splinter control. Stops splintering on OAK/BIRCH PLY VENEERS & MELAMINE

SIZES AVAILABLE	LIST	SALE	SIZES AVAILABLE	LIST	SALE
7-1/4" x 60T x 3/32" K	$149	$129	300mm x 100T x 1/8" x 30mm	---	$189
8" x 80T x 1/8" & 3/32" K	$202	$169	12" x 100T x 1-1/8"K	$253	$215
220mm x 80T x 1/8" x 30mm	---	$159	14" x 80T x 1"	$232	$197
9" x 80T x 1/8" & 3/32" K	$207	$179	14" x 80T x 1"	$266	$226
10" x 80T x 1/8" & 3/32" K	$207	$159	16" x 100T x 1"	$262	$243
12" x 80T x 1-1/8"K	$212	$181	16" x 100T x 1"	$294	$243

Above r pore standard.

SPECIAL COMBO SALE EXTRA 10%-20% OFF

CARBIDE IS THE HARDEST OF THE C-4 GRADES AND 40% STRONGER, NOT WEAKER! FOR 50% TO 300% LONGER LIFE.

Standard C-2 Carbide (below, left) and FORREST **still sharp** Oxidation and Corrosion Resistant Sub-Micron C-4 Carbide (below, right). Each shown after cutting 3,500 feet of MDF. Similar results obtained cutting particle board, melamine, and plywood.

STILL SHARP AFTER 3,500 FEET OF CUTTING!

BLADE DAMPENERS-STIFFENERS
FOR BETTER CUTS on all brands of blades, use our large 1/8" DAMPENERS-STIFFENERS against one side.

4"	..... $21
5"	..... $24
6"	..... $25

7" AND LARGER AVAILABLE

REDUCES NOISE 50%–75%

WE RECOMMEND OUR FACTORY SHARPENING as some local sharpening creates problems with **MICRO-CHIPPED EDGES** reducing blade life & cutting quality.
2-4 DAYS ON THESE AND ALL MAKES OF FLAT FACE & CONCAVE CARBIDE TIP SAWS. Ship via UPS. Typical 10x40T $17.00, 60T $19.00. Add return UPS $5.00, $1.00 each additional blade.

FOR SPECIAL PRICE COUPONS MENTION *WOOD*® MAGAZINE.
PHONE TOLL FREE! 1 (800) 733-7111
(In NJ: 973-473-5236) FAX: 973-471-3333

Quality is why we're different!

CANADA SALES:
CMR RON COLLIER
3644 SCHUMANN RD.
BAY CITY, MI 48706
800-229-4814
517-684-0402 FAX

FORREST

WESTERN CANADA:
CALL EUROPEAN SHARPENING
403-287-0850
403-287-1622 FAX

BUSINESS OPEN ACCOUNTS AVAILABLE

VISA MasterCard DISCOVER

FL, NJ, NY Residents Please Add Sales Tax
Shipping Charges with book:
Sawblades $9; Dado $10; Stiffener $2
SATISFACTION GUARANTEED OR FULL CASH REFUND.

Fine American saw making & sharpening since 1946.
DEALER INQUIRIES WELCOME

(800) 733-7111 or (973) 473-5236

FORREST MANUFACTURING COMPANY, INC. • 457 RIVER ROAD, CLIFTON, NJ 07014 • FAX (973) 471-3333

Print this article

These trees "talk"

Although nearly 40 million people have joined the U.S. cellular phone system to date, and lots more join each day, there's an unsightly side effect. Even many zoning boards disapprove of the 150'-tall antenna towers necessary to link the phones.

The scene may be changing, though. Four cellular companies—New Jersey's ARCNET, the Larson Company of Arizona, Nebraska's Valmont Industries, and AT&T— have joined forces to conceal their antenna towers as trees. With bark of epoxy resin and antennas inside the branches, the towers actually look like trees from a distance. The companies are presently using a white pine model, and plan to incorporate royal palms and saguaro cactus in the future.

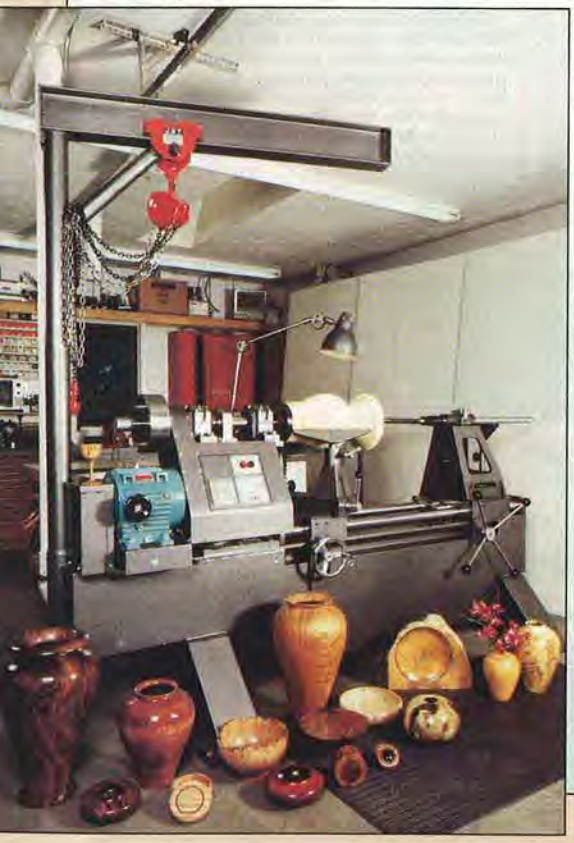
In the near future, cellular phone antennas resembling trees, like this white pine, may spring up to shade your neighborhood.

Well-done wine barrels

For centuries, winemakers have understood the relationship between superior wine and the barrel in which it ages. In California's Napa Valley, the center of the state's wine industry, the coopers at Seguin Moreau Napa Cooperage try to ensure that their barrels fulfill one-half of that relationship.

The tight barrels (as opposed to slack barrels, which won't hold liquid) produced at Seguin Moreau are made from specially seasoned white oak staves. After a cooper sets up the staves, hammers on the metal hoops, and shapes the barrel with heat and flame, he "toasts" the inside with glowing charcoal embers, a technique that eventually adds unique character to the wine.

Visitors to Seguin Moreau Cooperage soak up the vanilla-like smell of the toasting barrels as they watch the coopers at work. To arrange an appointment for a free tour, call 707/252-3408. Or write, Seguin Moreau Napa Cooperage, Inc.,151 Camino Dorado, Napa, CA 94558.



Do lathes get any bigger than this?

Dale Robbins isn't a Texan, but his lathe would do Texas proud. It weighs in at 4,500 pounds (including the 2,000 pounds of sand in the base that helps keep it motionless). The behemoth lathe can take a chunk of wood up to 1,000 pounds. Its 5-hp electric motor drives a hydraulic transmission with forward and reverse that spins wood at dialable speeds from zero to 1800 rpm.

The Elkhorn, Nebraska, construction contractor and hobby woodturner got fed up with the vibrations of lathes available in the marketplace. So he spent eight months designing and fabricating this giant. "I have 37½" of throw above the tool rest and 50" between centers to turn the big pieces I like to turn," says Dale. "And I seldom turn anything below 500 rpm. I had a 350-pound chunk of wood mounted on it 4" off center, and it turned without even a shudder."

Dale Robbins prefers turning big wood fast, and this 5-hp, 4,500-pound mammoth lathe fills the bill.

Because Dale likes to hollow his big vessels from the end instead of from the side, he has controls at the tailstock. "I can secure my gouge in the top of the tailstock [he has gouges 6' long and up to 2" in diameter] and just drive the machine," he chuckles.

Dale hasn't calculated exactly what the lathe cost, since he salvaged much of the material. "But I think it's better than any lathe I could buy."

Photographs: Dave Hamilton; Valmont/Microflect
Illustration: Jim Stevenson

ORDER 1-800-328-0457 MAIL ORDER HOURS M-F 7:00-5:30 C.S.T. SAT 8:00-1:00

1997 TOOL CATALOG AVAILABLE
Call Toll-Free 1-800-328-0457 In Minn. Call (612)224-4859
FAX: (612)224-8263
CHECK • MONEY ORDER • VISA • MASTERCARD • DISCOVER
SEVEN CORNERS ACE HDW. Inc.
216 West 7th St. • St. Paul, MN 55102 • Est. 1933

DELTA TOOLS

Model	Description	List	Sale
31-695	6" Belt/9" Disc Sander	441	299
23-710	New Sharpening Center	217	169
23-680	6" Bench Grinder 1/4 HP	80	69
31-460	4" Belt/Disc Sander	198	125
40-560	16" 2 speed Scroll Saw	230	155
40-540	NEW 16" var/spd Scroll Saw	249	179
11-990	12" Bench Drill Press	255	184
11-090	32" Radial Bench Drill Press	405	279
43-505	1/2" Bench Router/Shaper	398	289
22-540	12" Bench Top Planer	Sale	329
28-195	NEW 10" Band Saw	390	309
22-560	NEW 12-1/2" Bench top Planer	395	
36-865	NEW Versa Feeder Stock Feeder	249	
36-220	10" Compound Mitre Saw	294	199
28-185	Bench Band Saw	213	168
37-070	6" v/spd Bench Jointer	351	265
14-650	Hollow Chisel Mortiser	380	239
33-990	10" Radial Arm Saw	981	799
36-905	30" Unifence	346	245
36-906	50" Unifence	444	325

Above fences have $30.00 rebate.
Price shown is before rebate !

17-900	16-1/2" Floor Drill Press	490	399
37-190	6" Deluxe Jointer	603	445
36-285	8-1/4" Builders Saw w/ stand	Sale	268
36-210	10" Compound Mitre Saw	344	219
34-555	Sliding Table	487	289
36-250	10" Slide Compound Saw	825	489
31-780	Oscillating Spindle Sander	253	194
46-700	12" Wood Lathe	575	465
37-154	6" Jointer DJ-15	Sale	1289

The following Delta tools have $50.00 rebates ! Take $50 off price shown.

34-444	10" Contractors Table Saw	Sale	659
34-445Z	10" Table Saw w/ 30" fence, cast iron wing, 34-914 table board, & 35-032 blade		839
28-275	14" Band Saw 3/4 HP	Sale	635
28-280Z	14" Bans Saw 1 HP w/ 50-274 mobile base, 28-843 rip fence, & 28-266 cool blocks		839
40-650	Q3 18" Scroll Saw	Sale	479
22-675	DC380 15" Planer	Sale	1175
31-280	Sanding Center w/ stand	Sale	789

REBATES EXPIRE 12/31/97

MILWAUKEE TOOLS

6527	NEW Sawzall with case	343	169
6537-2	6527 w/quick lok blade change	224	175
0415-21	12V Drill w/kyls chuck&2 batt	380	175
0224-1	3/8" Drill 4.5 amp magnum	236	132
0234-1	1/2" Drill 4.5A mag 0-850 rpm	255	129
0235-1	1/2" Drill w/keyless chuck	255	135
0244-1	1/2" Drill 4.5A mag 0-600 rpm	255	129
0222-1	3/8" Drill 3.5 amp 0-1000 rpm	213	119
0228-1	3/8" Drill 3.5 amp 0-1000 rpm	207	109
0375-1	3/8" close quarter Drill	255	148
0379-1	1/2" close quarter Drill	288	165
6546-1	cdls Scrwdvr 200 & 400 rpm	150	89
6547-1	6546-1 w/bits,1/4" chuck & cs	185	108
5399	1/2" D-hdle Hammer Drill Kit	356	219
6507	Original SawZall with case	278	155
5397-1	3.8" w/ spd Hammer Drill Kit	275	145
5371-1	1/2" v/ spd Hammer Drill Kit	360	194
3107-1	1/2" v/spd right angle Drill Kit	411	234
3300-1	1/2" w/ spd right angle Drill	378	219
5682	Router 2 HP w/ collets	367	165
6142	4-1/2" Grinder w/cse & acc.	224	119
6365	7-1/4" Circular Saw 13 amp.	229	125
6368	6365 w/fence, blde,& cse	259	142
6256	Top Handle Jig Saw	278	149
6490	10" Mitre Saw	496	265
6491	6490 w/ carbide blade & bag	594	328
6494	10" Compound Mitre Saw	585	315
6266-6	Top Handle Jig Saw	315	159
6496	10" Slide Compound Saw	1050	569

FREUD CARBIDE TIPPED SAW BLADES
5/8" Bore - Industrial Grade

Item	Description	Teeth	List	Sale
LU72M010	Gen Pur. A.T.B.	10" 40	69	42
LU82M010	Cut-off 10"	60	93	44
LU84M011	Comb 10"	50	78	42
LU85M010	Super Cut-off	10" 80	115	59
LM72M010	Ripping 10"	24	69	38
LU73M010	Cut off 10"	60	84	45
LU87M010	Thin Kerf 10"	24	72	44
LU88M010	Thin Kerf 10"	60	88	49
LU98M010	Ultimate 10"	80	128	68
LU91M010	Compnd Mitre 10"	60	88	54
F410	Quiet Blade 10"	40	95	49
TK303	7-1/4" Finishing	40	38	25
TK906	10" Combo	50	53	32
SD308	8" Dado - Carbide		230	119
SD506	6" carbide w/case & shims		292	145
SD508	8" carbide w/case & shims		344	168
FB100	16 piece Forstner Bit Set		338	194
94-100	5 pc. Router Bit Door System		320	169

The following Freud tool has a rebate ! The price shown is before rebate.

FT2000E	Plunge Router - $30 rebate	Sale	205
FJ85	Top Hdl Jig Saw	Sale	99
JS102	Biscuit Jointer	Sale	125
TR215	8-1/4" Mitre Saw	Sale	249
FE62	3-1/4" Planer	Sale	99

WAP VACUUMS

Model	Description	List	Sale
766RDF	10 gallon turbo vacuum	845	465
766RDF-D	"Drywaller" 10 gal turbo vacuum	915	549
766RDF-DAS	Above vac w/ auto start	950	589

MAKITA TOOLS

5090DW	3-3/8" Saw Kit 9.6 volt	280	155
DA391D	3/8 angle Drill 9.6V	166	114
DA391DW	3/8" angle Drill Kit 9.6V	341	189
ML900	Incandescent Flashlight 9.6V.		9.95
6095DWE	9.6 volt Drill Kit w/2 batt	Sale	125
6095DWLE2	6095DWE w/flashlight	Sale	139
6095D	6095DW Drill only & cse	Special	65
632007-4	9.6 volt Battery	47	30
632002-4	7.2 volt Battery	39	28
6203DWAE	9.6V 3/8" Drill Kit w/2 batt	351	159
6211DWHE	12V 3/8" Drill Kit w/2 batt	368	175
6311DWHE	12V 1/2" Drill Kit w/2 batt	399	205

CORDLESS DRILLS
WITH 2.0 AMP HIGH CAPACITY BATTERIES

6213DWAE	12V 3/8" Drill Kit	325	169
6233DWAE	14.4V 3/8" Drill Kit	358	199

SUPER CORDLESS SPECIALS

6073DW 7.2V cdls Drill Kit. Variable speed & clutch. Complete with battery, charger, & case. ..... Super Sale 99

9900B	3"x21" Belt Sander w/bag	347	179
9924DB	3"x24" Belt Sander w/bag	360	189
4301BV	Orb. var. spd Jig Saw 3.5A	292	155
JR3000V	v/ spd Recip Saw w/case	264	135
9820-2	Blade Sharpener	433	215
N1900B	3-1/4" Planer with case	263	139
1912B	4-3/8" Planer	352	199
N9514B	4" Disc Grinder 4.6 amp	118	65
DA3000R	3/8" Angle Drill	355	179
2708W	8-1/4" Table Saw	637	309
6405	3/8" Drill Rev. 0-2100 rpm.	115	65
6510LVR	3/8" Drill Rev. 0-1050 rpm.	188	98
6013BR	1/2" Drill Rev. 6 amp	270	149
9401	4" x 24" Belt Sander w/bag	458	225
5007NBK	7-1/4" Circ Saw w/ case	250	125
LS1011	10" Slide Compound Saw	995	429
LS1211	12" Slide Compound Saw	1620	779
3901	Plate Joiner Kit	376	209
3612C	NEW 3 HP Plunge Router	492	259
LS1040	NEW 10" Cmpnd Miter Saw	460	259
LS1013	NEW 10" Dual Compound Slide Miter Saw	1088	599
BO5010	NEW 5" Random Orbit Sander with dust pickup	142	72

SENCO AIR NAILERS

SFN1+	Finishing Nailer 1" - 2" w/ cs	448	345
SN325	Nailer 1-7/8" - 3-1/4"	665	389
SLP20	Pinner w/cs 5/8 -1-5/8"	422	279
SKS	Stapler 5/8" - 1-1/2"	390	279
SN70	Framing -Clip Hd 2"-3-1/2"	725	449
SN65	Framing -Full Hd 2"-3-1/2"	709	465
SFN40	Finish Nailer 1-1/4 - 2-1/2	569	389

BOSTITCH AIR NAILERS

N80S-1	Stick Nailer	Super Sale	339
N80C-1	Coil Nailer	Sale	339
RN45	Coil Roof Nailer 3/4 - 1-3/4	845	369
N60FN-2K	Finishing Nailer w/ case	557	275
BT35-2K	Brad Tacker 5/8" - 1-3/8" with case, oil, & brads	279	125
CWC100	1 HP Pancake Compressor	440	289
MIIIFS	Flooring Stapler 15 gauge	902	529
S32SX-1K	Finish Stapler-1/2" - 1-3/8" with case & oil	269	145

SKIL TOOLS

77	7-1/4" Worm Drive Saw	Sale	158
77M	77 Mag Worm Saw	Sale	168

PANASONIC CORDLESS

EY6181CRKW	9.6V Drill Kit w/ 2 batteries, 1 hour charger, & case	307	169
EY6100EQKW	12V Drill kit w/ 2 Ironman batteries, 15 min. charger, & case	379	179
EY6100SEQK	Same as above but has 1 Ironman battery and 1 diagnostic battery	Sale	204
EY6101SQK	12 volt 1/2" Drill w/ 15 min. charger, diagnostic battery, & case	438	249
EY6101EQKW	Same as above but has two Ironman batteries	Sale	249
EY3503FQWKW	NEW 5-3/8" 12V Wood Cutting Saw Kit	500	259

PASLODE IMPULSE GUNS

IM250	Trimpulse Finish Nailer Kit.	1130	548
IM325	Impulse Framing Nailer Kit	1130	548
CT325SS	Cdls Framing Nailer Kit..	1120	495

CLAYTON OSCILLATING SPINDLE SANDERS

140	Portable sndr w/ 4-1/2" spindle	625	559
146	Portable sander w/ 9" spindle	665	609
100	Floor mount sndr 4-1/2" spindle	785	709
106	Floor mount sander 9" spindle.	845	759

SIOUX TOOLS

8030	3/8" var/spd Drill	263	165
8000	3/8" var/spd close qtr Drill	211	135
690	5" Air Random Orbit Sander	228	132

TOOLS ON SALE™
AMERICA'S LOWEST PRICED TOOLS
FREE FREIGHT TO THE
48 CONTINENTAL STATES ON EVERY ITEM
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

NEW Dewalt Bench Top Tools

DW708
12" Dual Compound Slide Mitre Saw
Sale 679

DW788
20" Scroll Saw
Sale 489

DW733
12" Planer
Sale 459

DEWALT
High Performance Industrial Tools

DEWALT TOOLS

Model	Description	List	Sale
DW321K	Top Handle Jigsaw Kit	300	164
DW364	7-1/4" Circ. Saw w/brake	294	162
DW610	1-1/2 HP 2 handle Router	266	152
DW411	1/4 sheet Palm Sander	88	58
DW682K	Biscuit Joiner with case	448	199
DW705	12" Compound Mitre Saw	734	359
DW625	3 HP w/ spd PlungeRouter.	Sale	279

DW625 router comes with DW6913 edge guide !

DW621	NEW 2 HP Plunge Router	400	218

DW621 comes with Free DW6956 fine height adjuster

DW675K	3-1/8" Planer with case	292	164
DW431	3 x 21 v/spd Belt Sander	338	188
DW421	5" Palm Ran. Orb Sander	144	74
DW444	6" Ran Orb Sander	266	145
DW443	DW444 w/hook & loop pad.	266	145
DW673K	Laminate Trimmer Kit	364	188
DW274	Drywall Gun, 0-4000, 6.3 amp	160	95
DW935K	14.4V 5-3/8" Trim Saw Kit	444	237

DEWALT CORDLESS DRILLS

DW952K-2	3/8" v/spd w/ two 9.6V XR batteries	284	129
DW962K-2	3/8" variable speed w/ two 9.6V XR batteries	330	179
DW972K-2	3/8" v/spd w/ two 12V batt	362	182
DW904	12 volt flashlight	49	29.95
DW991K-2	3/8"variable speed w/ two 14.4V XR batteries	415	209
DW994KQ	1/2" variable speed w/ one 14.4V XR batteries	458	239

Above drill kits come w/ charger & steel case!

DW991KS-2	DW991K drill, DW935 trim saw, & case	Sale	345

DEWALT 18 VOLT CORDLESS TOOLS

DW938K	NEW Recipro Saw Kit	520	289
DW995K	1/2" Drill Kit	428	229
DW997K	1/2" Drill/Hammer Drill Kit	454	249
DW936K	5-3/8" Saw Kit	458	249
DW995KS-2	DW995K Drill, DW936 Saw and case	Sale	385
DW991KC-2	DW991K 14.4V drill kit, DW937 14.4V recipro saw,& case		349
DW995KC-2	DW995K 18V drill kit, DW938 18V recipro saw, & case		395
DW997KC-2	DW997K 18V drill kit, DW938 18V recipro saw, & case		405

HITACHI TOOLS

C8FB2	8-1/2" Slide Compound Saw	1169	469
C10FC	10" Mitre Saw	533	189
C10FS	10" Slide Compound Saw	1627	739

C10FS has $50.00 rebate until 1/31/98

C15FB	15" Mitre Saw	1346	659
NV45AB	Coil Roofing Nailer	935	379
NT65AA	15 ga. Brad Nailer 1-1/4 -2-1/2"	636	365
C10RA	NEW 10" Table Saw	632	319

BIESEMEYER FENCES

B-50	50" Commer. Saw	443	325

Above fence has $50.00 rebate !

T-SQUARE 52	52" Homeshop	360	275

Above fence has $20.00 rebate !

T-SQUARE 40	40" Homeshop	335	255

Above fence has $20.00 rebate !

T-SQUARE 28	28" Homeshop	325	245

Above fence has $20.00 rebate !

REBATES EXPIRE 12/31/97

PONY CLAMP FIXTURES

Model	Description	List	Sale	Lots of 12
50	3/4" Black Pipe	15.45	8.10	92.50
52	1/2" Black Pipe	12.65	6.95	74.95

BOSCH

Model	Description	List	Sale
1587VS	Top Handle "CLIC" Jig Saw	292	139
1587AVSC	1587VS 50th Anniversary saw with case	Sale	149
1584VS	Barrel "CLIC" Jig Saw	288	139
	Bosch Metal Case for above Jig Saws		24
	Bosch 30 blade assortment for Jig Saws		28.99

1584VS or 1587VS
with steel case and 30 Bosch blades Sale 175

1295DH	5" Random Orb Palm Sndr	145	89
1274DVS	3"x21" w/spd Belt Sander	301	175
1276D	4"x24" Belt Sander	379	219
1278VSK	NEW 1-1/2"x12" Belt Sander	218	129
1275DVS	3"x24" v/s Belt Sndr	379	214
1276DVS	4"x24" v/s Belt Sndr	408	229
1347AK	4-1/2" Grinder w/cs & acc.	172	89
1194VSR	1/2" v/ spd Hammer Drill	272	155
1194VSRK	above Drill w/ case	303	169
1604A	1-3/4 HP 2 Handle Router	269	142
1613EVS	2HP v/s Plunge Router	369	199
1615EVS	3 HP v/s Plunge Router	536	289
1634VSK	Recip Saw 10.5 amp	335	189
3310K	12V T-handle Drill Kit	345	175
3610K	14.4V Drill Kit	354	195
3107DVS	5" Random Orbit Sander	195	98
3107DVSK	3107DVS with case	195	115
3725DVS	5" Random Orbit Sander	256	149
3727DVS	6" Random Orbit Sander	266	154
B3915	10" Slide Compound Saw	1050	559
11224VSR	7/8" SDS Rotary Drill	404	229

STABILA LEVELS

21990	NEW 10" Torpedo Level	Sale	12.95
24640	24" Level w/ hand holes	62.20	43
24670	48" Level w/ hand holes	79.70	55
24610	48" Level w/ angle setter vial	80	55

24610 level comes w/ Free 21990 Torpedo level !

AIRY AIR NAILERS

Model	Description	List	Sale
0241SK	Brad Nailer 3/8"-1 9/16"	180	96
0250SK	Brad Nailer 3/4"-2"	296	164
0626SK	1/4" Crown Stapler 3/8"-1"	194	104

Above Nailers come w/case, fasteners, oil & wrenches

0565T	Angle Finish Nailer 1"-2-1/2"	386	205

RECORD WOODWORKING VISES

Model	Jaw\Width	Opening	List	Sale
53E	10-1/2"\15"	Quick release	248	109
52D	7"\8"	Quick release with dog	169	75
52-1/2D	9"\13"	Quick release with dog	231	89

PORTA NAILER

401	Porta Nailer complete	295	209
501	Face Nailer complete	295	209

DAVID WHITE

LP6-20	Sight Level package - 20x	329	215
LP6-20XL	LP6-20 w/9056 tripod & 7620 rod	269	
LT8-300	Level Transit - 26x	739	489
LT8-300P	above Level w/ optical plum	869	565
LT6-900	Level Transit - 20x	419	269
ALT6-900	Auto Level - Transit -18x	666	429
ALTP6-900	above Level with tripod & rod	799	499
AL8-22S	Automatic Level - 22x	583	339
AL8-26S	Automatic Level - 26x	854	379
LL100	Finish Line Laser Level	199	135

RYOBI SPECIALS

RE600	3 HP Plunge Router	500	235
BT3000	10" Table Saw w/ stand	1125	539

Above saw comes with router kit

AP12	12" Bench Planer	884	379

Above comes w/ extra blades & dust hood

OSS450	Oscillating Spindle Sander	340	159

Above sander comes with spindles

CD125K	12V cordless Drill w/ 2 batt	175	109
WDS1600	16"x32" Drum Sander	980	569

Above sander comes with stand

DBJ50	NEW Detail Biscuit Jointer	114	69
Msxe6362	FEIN Triangle Sander v/spd		175
Msx625	FEIN New Air Triangle Sander		195
LPN672	PONY Air Palm Nailer w/glove		89
RTM01	ROTOZIP Drywall cut out unit		68.95

QUAL-CRAFT PRODUCTS

2200	Pump Jack	79	58
2201	Pump Jack Brace	30	20
2203	Pump Jack guard rail holder	31	21
2204	Workbench & rail holder combo	53	39
2500	Adjustable Roofing Bracket	9.95	7.95

Buy any 6 (can be assort.) deduct 10%

2601	Wall Jack	167	108

Lots of 4 deduct additional 10%

PORTER CABLE

9444	Profile Sander Kit	220	99
9444VS	New v/spd Profile Sander Kit	207	115
690	1-1/2 HP Router 8 amp	278	149
6931	Plunge Router Base	139	82
693PK	690 and 6931 plus case	Sale	199
691	1-1/2 HP Router D-handle	303	164
693	1-1/2 HP Plunge Router Base	338	184
697	1-1/2 HP Router/Shaper	418	235
698	Heavy Duty Shaper Table	238	135
352VS	3x21 v/s Belt Sander w/bag	321	169
360	3"x24" Belt Sander w/ bag	397	214
360VS	360 Sander w/ variable speed	429	229
362	4"x24" Belt Sander w/ bag	412	224
362VS	362 Sander w/ variable speed	446	239
9125	3-1/4" Planer Kit w/ case	250	145
9118	Porta Plane Kit 7 amp	400	235
505	1/2 sheet Pad Sander	249	139
97549	Top handle Jig Saw 4.8 amp w/ case & blades	275	144
330	Speed Block Sander 1/4 sheet	120	65
556	Biscuit joiner w/5556 fence	Sale	132
345	6" Saw Boss 9 amp	207	118
9647	TIGER CUB Recip. Saw	230	134
9637	Full var/spd Recip Saw 8 amp	276	148
7519	3-1/4 HP Router 2 Handle	469	255
7518	3-1/4 HP 5 speed Router	534	284
7539	3-1/4HP v/spd Plunge Router	534	279
7310	5.6 amp Laminate Trimmer	176	102
97310	Laminate Trimmer Kit comp	336	189
7335	5" Random Orbit Sander	254	135
97355	7335 w/ case & dust pick-up	274	145
7336	6" Random Orbit Sander	259	138
97366	7336 w/ case & dust pick-up	284	149
332	Palm Grip Rndm Orb Sander	133	59
333	above sander with dust bag	148	65
334	333 Sander with PSA pad	148	65
335	NEW Palmgrip Random Orbit Sander with dual flip pad	Sale	85
310	Production Lam. Trimmer	270	154
347K	7-1/4" "Framers" Circ Saw with plastic case	250	129
743K	7-1/4" "Framers" Circ Saw with case - left hand version	250	129
9737	Tiger Recipro Saw	307	158

Porter Cable Pneumatic Nailers

BN125	Brad Nailer -18 ga. 5/8" - 1-1/4"	144	89
BN200	Brad Nailer -18 ga. 3/4"-2"	238	139
FN250A	Finish Nailer -16 ga. 1"-2-1/2"	362	189
DA250A	Nailer -15 ga. 1-1/4"-1-1/2"	412	235
FC350	Framing Nailer - clipped head	558	289
FR350	Framing Nailer - round head	558	289
RN175	NEW Roofing Coil Nailer	504	289

NEW Porter Cable Compressors !

CF1400	1 HP, 4 gal. Pancake	Sale	195
CF1540	1-1/2 HP, 4 gallon Side Stack	Sale	295
CF2400	2 HP, 4 gal. Side Stack	Sale	319
9830	9.6V Drill Kit w/ 2 batteries	284	145
9862	12V Drill Kit w/ 2 batteries	382	169
9862F	9862 Drill Kit with flashlight	Sale	189
9863	NEW 12V Drill Kit - pistol grip	319	179
9872	14.4V Drill Kit w/ 2 batteries	424	205

FREE FREIGHT TO THE CONTINENTAL STATES ON EVERY ITEM • GIFT CERTIFICATES NOW AVAILABLE

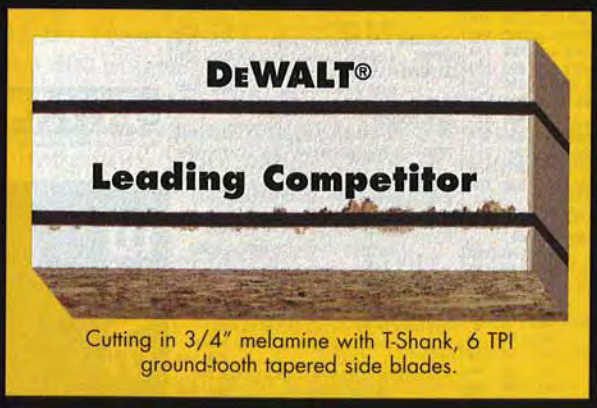
Circle No. 92

THE NEW COBALT STEEL JIGSAW BLADES FROM DEWALT

GREATER PRECISION. SUPERIOR FINISH. (AS IF LASTING FIVE TIMES LONGER ISN'T ENOUGH.)

The New DEWALT® Cobalt Steel Jigsaw Blades have been engineered to deliver superior precision and finish while lasting up to 5X longer than any other jigsaw blade. The difference is all in the teeth. An exclusive reinforced tooth design puts more steel behind each tooth for more precise cuts and longer life. With DEWALT's new stronger blade body, following your cutting line is easier. You get less bending and accurate 90 degree cuts. Cleaning up is easy because the side chip path gullet clears the cut leaving a virtually splinter-free surface. And DEWALT's Jigsaw Blades are made from a premium grade of Cobalt Steel ensuring maximum durability and the longest cutting life.

But don't take our word for it, put our new jigsaw blades to the test yourself. **Call 1-800-4-DEWALT, for your free sample.***



Cutting in 3/4" melamine with T-Shank, 6 TPI ground-tooth tapered side blades.

DEWALT®
High Performance Industrial Tools

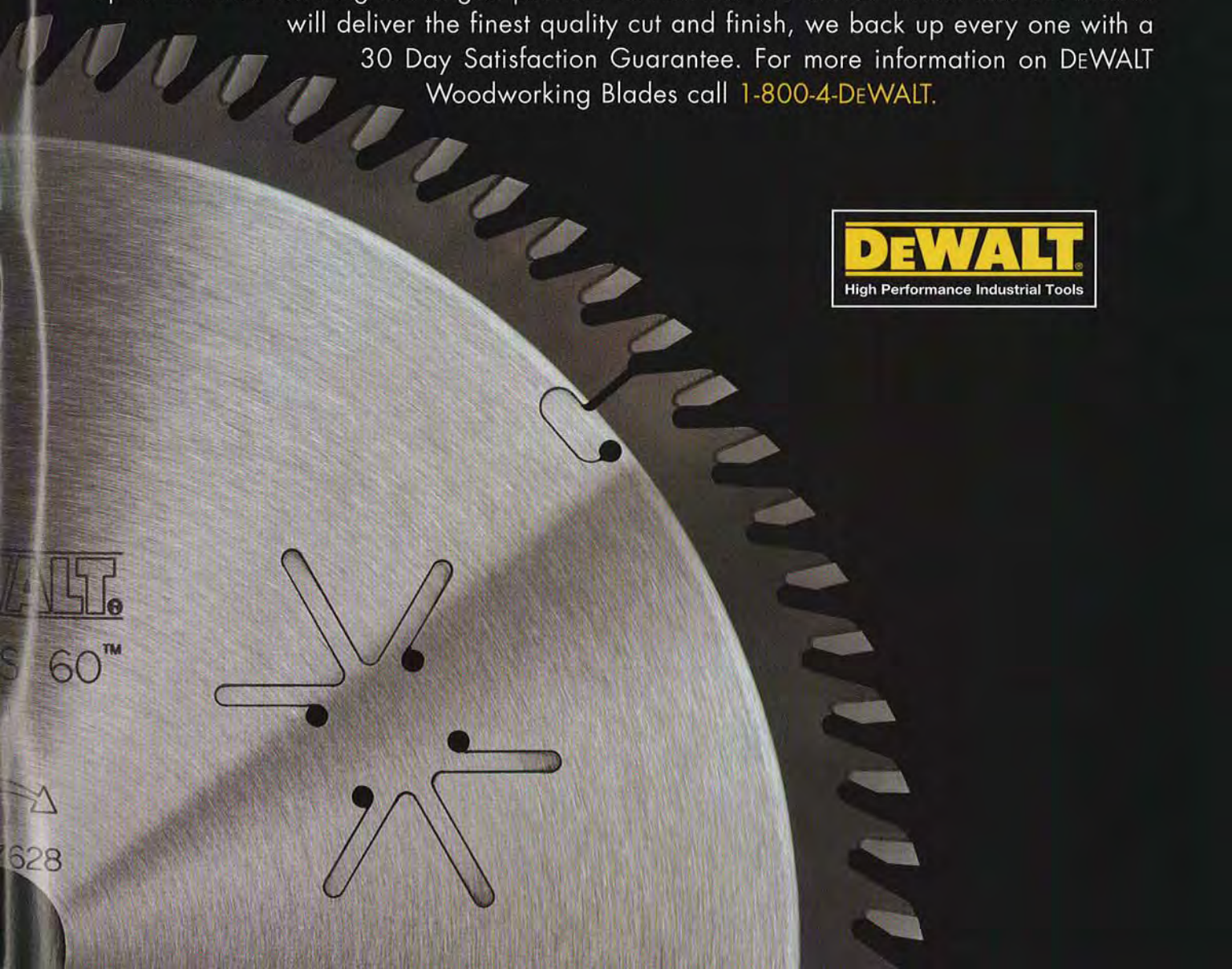
*While supplies last.

THE NEW WOODWORKING SAW BLADES FROM DEWALT

CUTS LIKE A BLADE, FINISHES LIKE A SANDER.

When your reputation rides on every cut, precision is not an option. It's a necessity. That's why DEWALT® has created the new Series 60™ Premium Woodworking Saw Blades. DEWALT starts with a laser cut plate that's precision balanced and tensioned to deliver a perfectly flat blade. Precision tuned anti-vibration slots reduce blade resonance delivering a super smooth finish on all of your work surfaces. We also take extra care in grinding our carbide tips. We polish our tips to a mirror finish using a 600 grit diamond wheel. These razor sharp cutting edges slice cleanly through the most difficult materials with precision and accuracy. Our extra large C-4 corrosion resistant micro-grain carbide stays sharp longer and can be resharpened up to 20 times ensuring the longest possible service life. We are so certain that our blades will deliver the finest quality cut and finish, we back up every one with a 30 Day Satisfaction Guarantee. For more information on DEWALT Woodworking Blades call 1-800-4-DEWALT.

DEWALT®
High Performance Industrial Tools



The Home Depot and DeWalt Introduce The Top of The Class

The DW744 10" Portable Table Saw adjusts smoothly and easily for a full 24 1/2" ripping capacity.

The DW788 20" VS Scroll Saw reduces vibration and noise, giving you more comfort and greater precision than ever before.

The DW733 12 1/2" Portable Thickness Planer features a four-column head lock which stabilizes your work, greatly reducing snipe.

The DW708 12" Sliding Compound Miter Saw allows you to bevel left and right past 45° all the way to 48° eliminating the need to flip material.

The Home Depot proudly introduces the best tools in their class; the new machinery from DeWalt. Dedicated to perfection, DeWalt now brings you even greater accuracy, expanded productivity, portable convenience and outstanding comfort. When you come to The Home Depot, you'll find out why more people who make a living with their tools buy their tools from The Home Depot... the place where people who know their stuff buy their stuff.™

© 1997, HOMER TLC. Inc.

Better Homes and Gardens®

WOOD® PATTERNS®

Full-sized for your woodworking convenience

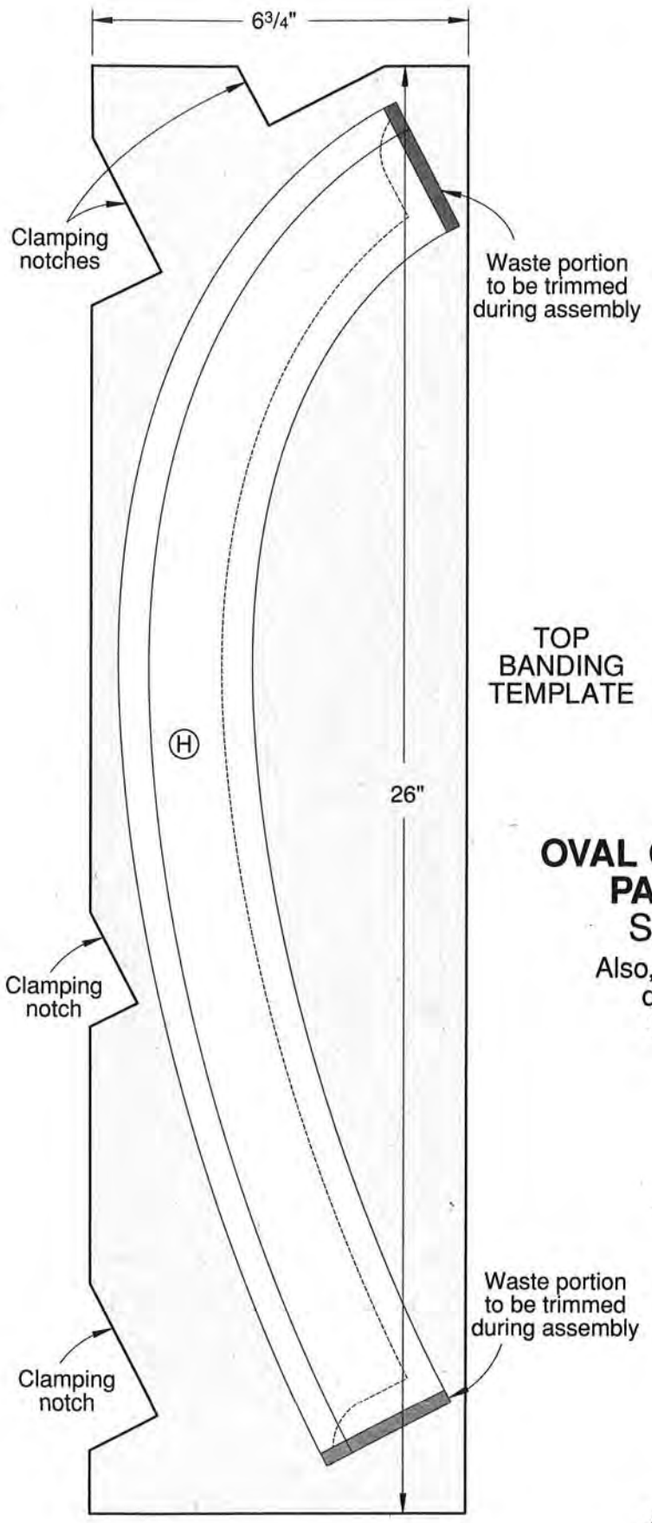
WINTER 1997 **ISSUE 102**

Dear Reader: As a service to you, we've included full-sized patterns on this insert for irregular-shaped and intricate project parts. You can machine all other project parts using the Bill of Materials and the drawings accompanying the project you're building.

Coffee Table

Carved Plate

© Copyright Meredith Corporation,1997.
All rights reserved.
Printed in the U.S.A.

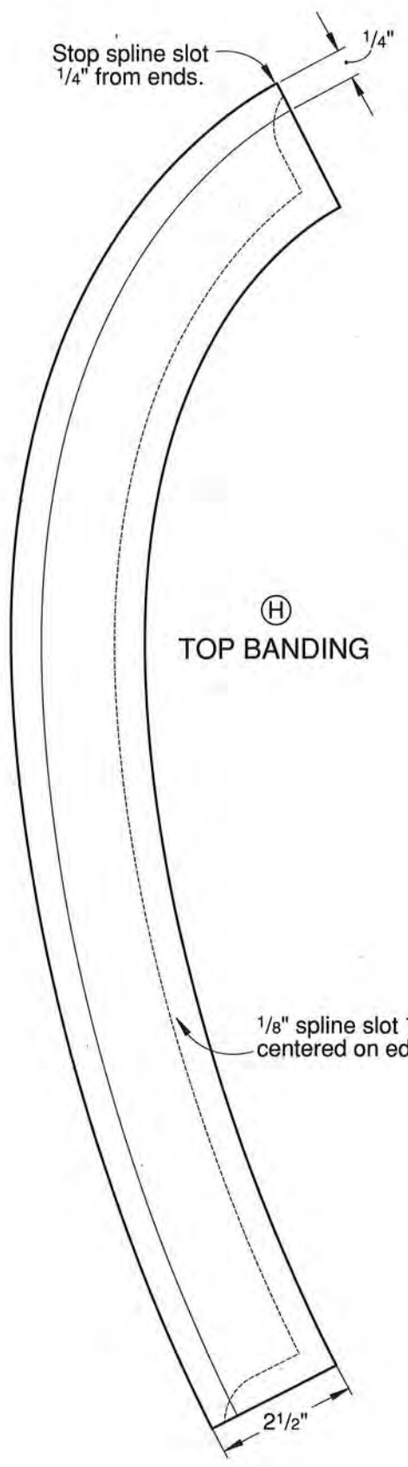


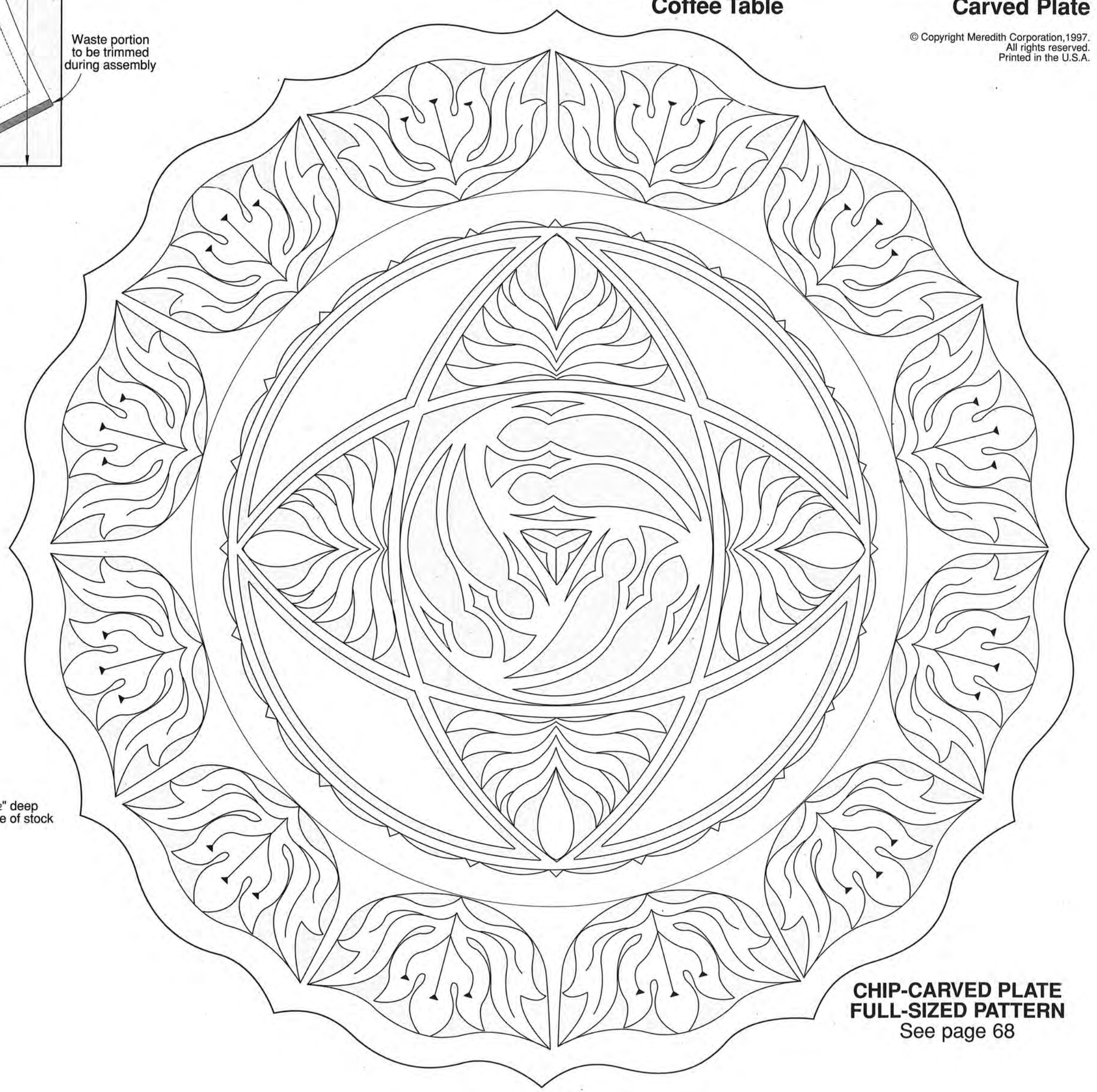
TOP BANDING TEMPLATE

OVAL COFFEE TABLE PARTS VIEWS

See page 42

Also, see the full-sized quarter pattern on other side



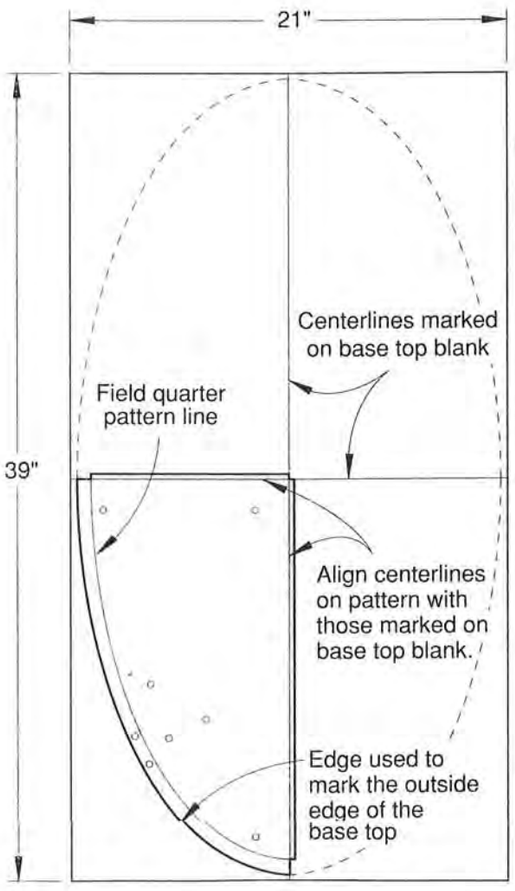


CHIP-CARVED PLATE FULL-SIZED PATTERN

See page 68

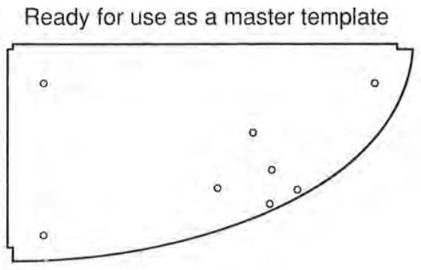
HOW TO USE THE PATTERN FOR MAKING A TEMPLATE FOR PARTS Ⓐ, Ⓗ, AND Ⓘ.

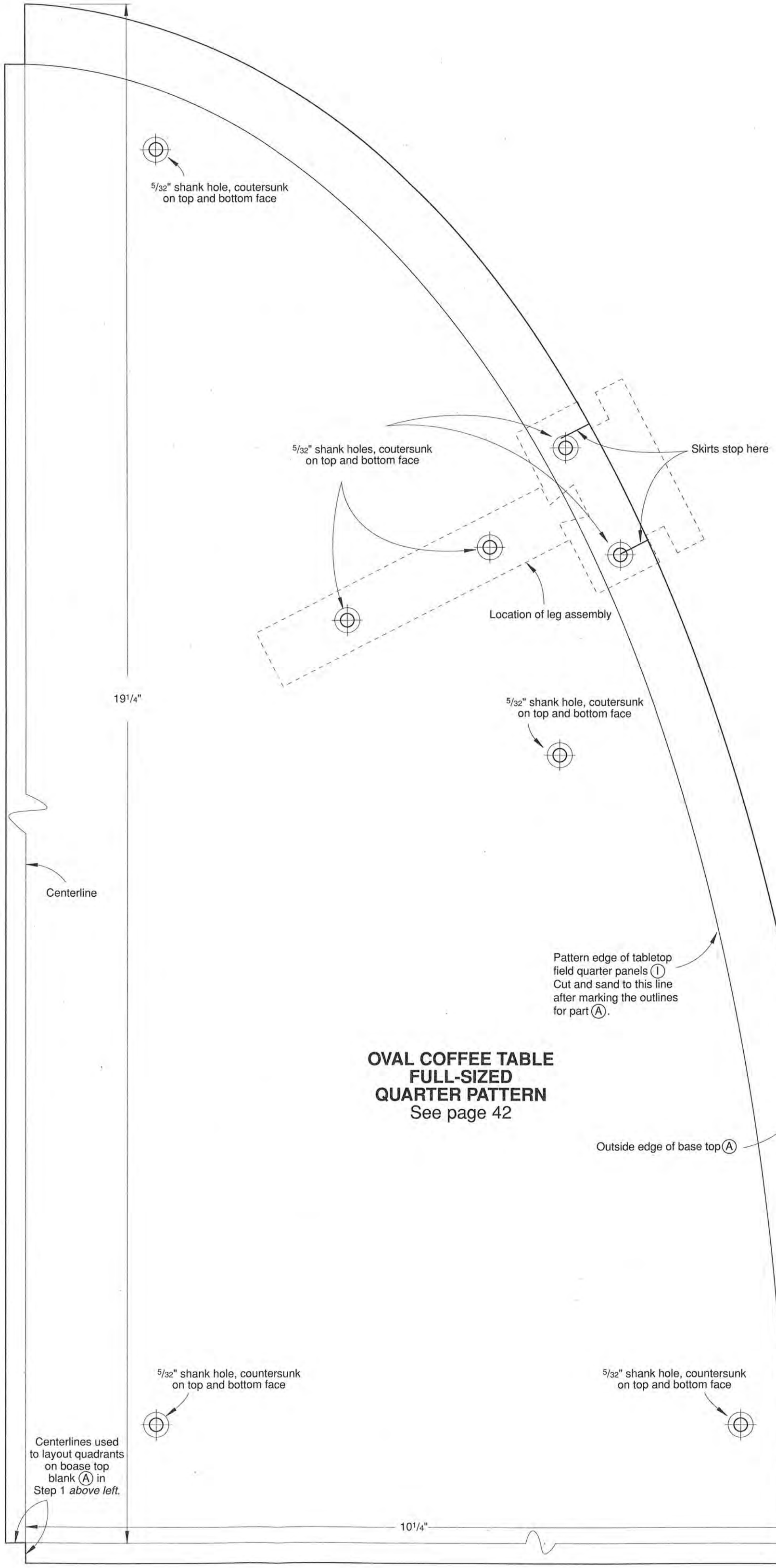
Step 1 Use the full-sized quarter pattern to make a template for outlining the oval base top Ⓐ according to instructions on *page* 43. When positioning the template on the base top blank Ⓐ, you'll need to align it as shown *below*.


21"
39"
Centerlines marked on base top blank
Field quarter pattern line
Align centerlines on pattern with those marked on base top blank.
Edge used to mark the outside edge of the base top

Step 2 To form the master template for parts Ⓗ and Ⓘ, cut and sand to the field quarter pattern line on the hardboard template formed in Step 1 *above*.

Ready for use as a master template




5/32" shank hole, coutersunk on top and bottom face
5/32" shank holes, coutersunk on top and bottom face
Skirts stop here
Location of leg assembly
5/32" shank hole, coutersunk on top and bottom face
19 1/4"
Centerline
Pattern edge of tabletop field quarter panels Ⓘ Cut and sand to this line after marking the outlines for part Ⓐ.
Outside edge of base top Ⓐ
5/32" shank hole, countersunk on top and bottom face
5/32" shank hole, countersunk on top and bottom face
Centerlines used to layout quadrants on boase top blank Ⓐ in Step 1 *above left.*
10 1/4"

OVAL COFFEE TABLE
FULL-SIZED
QUARTER PATTERN
See page 42